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THE FOOD CLINIC LIVES IN PEACE AND WAR[1]

FRANCES STERN
Food Clinic, Boston Dispensary

At the silver anniversary of the Boston Dispensary Food Clinic it was logical that there should be inquiries about its history. It might be of interest to you to hear some of those questions. "How did you dare begin?" they asked. "What gave you the idea?" Perhaps the most challenging question was, "Why has the Food Clinic lived?"

To the last question I replied, "The Food Clinic has lived because it meets the needs of human beings." Through various experiences in working with human beings, before the inception of the Food Clinic, certain principles were formulated. These became the basis upon which the Food Clinic was established.

What were these experiences? In order to answer adequately, I shall have to go back many years. In early days I had the privilege of knowing and working with Mrs. Ellen H. Richards. At the same time, Isabel F. Hyams, who was Mrs. Richards' assistant, and I started a girls' club. Here I had opportunity to apply the methods of progressive education in teaching children the principles of nutrition and hygiene for which Mrs. Richards was urging a place in every school and every teaching program in the interest of public health. Even in those early days we used a leaflet on health education published by an organization called the Health Education League, and we experimented with methods of visualization, using a set of graduated blocks to represent the height of a 70-kilogram adult. The blocks were graduated to show the percentage of carbohydrate, protein, fat, and minerals that would fulfil his daily requirement of these food constituents.

My interest in children was led into the channel of child health education. This stimulated my interest in other members of the family, and soon I ventured forth as an instructive visiting housekeeper for the Boston Tuberculosis Association, and later for the Boston Provident Association. It was during this period that I came to feel the great need of knowing about the home as a determining influence in the happiness and health status of the individual. This was the stimulus for much of the data that appear in our nutritional history today.

I had always been keenly interested in labor, and had taken courses in industrial hygiene at the Massachusetts Institute of Technology, under Professor Sedgwick, famous for his work in public health. When Massachusetts established a State Department of Labor and Industries, I became an Industrial Health Inspector. It was not difficult to realize that this was the third angle of the family triangle. I had known the child in school, the mother in the home, and now I was to have experience with the father in industry. Again our nutritional history gives evidence of this experience, in the data concerning occupation, hours of labor, hours of rest, and other factors.

On many occasions, when visiting medical clinics, I heard the doctors say to patients, "a nutritious diet"—which I knew from my experience the patient seldom had either the money or the knowledge to procure. The difficulty in obtaining sufficient food was accentuated when the first World War brought higher prices in its train and the "meatless," "wheatless," and "sugarless" days necessitated changes in food habits. Dr. Michael M. Davis, then Director of the Boston Dispensary, was keenly aware of the problem of promoting good nutrition for the successful medical treatment of wage earners and their children. Because of this interest he realized the need of a food clinic to help the ambulatory patient and with his approval the Food Clinic of the Boston Dispensary was established in April 1918. To quote Mr. Leon Henderson, "In this war the vital role of food is accentuated a thousandfold, armies depend on it for life and workers must have it to produce material." History repeats itself. Today, as in the last war, the Food Clinic is cooperating with the Government in assisting people to solve their food problems.

This is the story of the early days of the Food Clinic. The hospital dietitian was feeding the bed patient according to the physician's prescription but hardly with the thought of the social and economic conditions that would face the patient on his discharge. Relief agencies were furnishing food to the "sick poor" on the basis of social and economic needs but not, at that time, in terms of the principles of nutrition. The Food Clinic in the Out-Patient Department would be a place where each member of the family unit would be given expert food guidance correlated with his medical treatment and with the needs of his economic and social life. There, also, he would be taught the principles of nutrition and hygiene in terms that would help him to understand the reason for the diet prescribed for him and appreciate the necessity of adhering to it.

The doctor and social worker were already in the Out-Patient Department. Now came the dietitian to complete the service to mother, father, and child, in terms of the daily life in the home, at work, and at school.

Hardly had the Food Clinic been established in the Boston Dispensary when the demands of war took me to France with the American Red Cross. In Paris the Food Clinic had its place in the settlement we established there, and education of French children, and mothers as well, in the principles of nutrition, was a part of our teaching program. In 1922 I returned to Boston to resume my work in the Food Clinic.

Today the work of the Food Clinic is so widely extended it is hard to believe that it was started with one desk and two chairs, and perhaps four patients a week referred by the Social Service Department. The primary consideration then, as today, was the patient.

We began at once to formulate an outline for a nutritional history which would give the dietitian as complete a picture of the patient as possible. There was no precedent, no standard to follow, but from the varied experiences of which I have told a new philosophy had developed for the treatment of the patient. The dietitian should know the patient—his habits, tastes, occupations, his working hours and conditions, his hours of rest, the number in the family—every factor in the home, community, and work environment that would affect the success of food treatment. The dietitian in the Food Clinic obtains this information in taking the nutritional history of the patient, who sits in conference with her and is encouraged to talk freely of himself.

I am telling you this not so much to describe the factors considered in the nutritional history as to show you that the knowledge of the patient gained through interpretation of this history is another answer to the question, Why has the Food Clinic lived?

We have held steadfastly to the belief that a patient will follow his diet more faithfully if he understands the relationship of food to body needs. So he is taught the daily food requirements of the body in terms of the food constituents and is shown the foods which supply them. Teaching the therapeutic diet then becomes easy, since

[1] Presented before the American Dietetic Association, Pittsburgh, October 21, 1943.

the patient is shown that there is no marked differentiation between the normal and therapeutic diets, and that only occasionally is the normal diet changed in the amount of protein, sometimes in carbohydrate and fat, and rarely in minerals or vitamins. Or the diet may be modified only by the omission of certain foods, or by a change in the consistency of the foods. With this method there is no need for the many so-called "special diets"—confusing to the physician, an added burden to the dietitian, and disturbing to the patient—diets which to the patient appear to call for a reorganization of his household.

For the purpose of teaching the patient we have formulated simple educational material, so far as possible in pictorial form; for example, the illustrated folder with which many of you are familiar, "Feed Your Body to Protect Your Health," of which there is now a revised edition. It summarizes for the lay person essential principles in pictorial form: how the food constituents serve body needs and what foods supply them, as well as the daily requirements of the food constituents at different age levels according to the recommendations of the Food and Nutrition Board, National Research Council. On another page different foods are listed under the various food groups, to offer choices, and there are suggestions as to the ways of using these foods, and for their care and preparation to conserve minerals and vitamins. The five charts of this folder, enlarged to poster size, have proved most helpful in group teaching, making the names of the food constituents familiar household words.

Again, Why has the Food Clinic lived? Because it develops in patients a knowledge of their body requirements, an understanding of their own needs, so that they are not passive but become active in their own behalf.

Much of the material that has been printed concerning the vitamins is difficult for the layman to follow. In a series of picture sheets we have tried to present scientific findings in an interesting and simple form. We have taken each constituent separately, and in few words have shown how it is related to body needs, in what foods it is found, and the amount required daily. The food sources are pictured in terms of servings, and the amount of the food constituent in each serving is stated. Then, for very practical use of this material, space is left in which to set down the amounts of these foods one consumes in a day and beside them the amounts of the food constituent they contain. By adding these amounts and comparing the total with the requirement, which is stated above, the child —and the adult as well—can readily see how nearly he approaches the requirement. This is simple teaching material and far more effective than if the patient were merely told, in so many words, what he should eat.

It may take a long time to accomplish, but we are developing in our patients a knowledge of the metric system: the gram, milligram, microgram, and kilogram—words which appear on the picture sheets just described and which are constantly visualized for the patient in the Food Clinic.

This leads me to tell of the work of which the book, *How to Teach Nutrition to Children*, is the outcome. For many years the clinic has had a Health Education Department affiliated with it. The Health Educator works in the clinic waiting rooms, wherever children are waiting for treatment. Gathering the children in a group, she holds them absorbed while developing, in accordance with the Food Clinic philosophy in relation to teaching nutrition, knowledge of their need of the food constituents and how to obtain them. The nearby adults become interested in the discussion and learn with the children. The Health Educator also holds special meetings for mothers during the year, teaching the same principles by the same methods. Also we have an Adult Health Educator who formulates methods and creates materials for teaching on a more adult level, through exhibits and by other means. There are always exhibits in the corridors and waiting rooms for patients and passers-by to observe, and thus their message is extended to the community. Wax models of foods are used, primarily, in these exhibits, and they are also of special value in teaching the patient the kinds and amounts of food in his diet.

And so the query, Why has the Food Clinic lived? is again answered: Because it has made the science of nutrition exciting and easy to understand, and the response from patients, whether child or adult, as well as from students, doctors, nurses and social workers, has stimulated the clinic to further endeavors in visualizing and teaching the principles of nutrition.

The clinic is not just a room; rather it has been termed, by the patient, a "home." With its pictures and objects it represents the cultural life of the patient, especially of the foreign-born. The Russian sees his samovar, the Italian his pottery, the Syrian his lovely colored baskets. The patient feels that here is an appreciation of his native crafts and customs, an interest in himself, and in this friendly place he gives the dietitian his confidence and becomes interested in the plan of his food treatment, and is loyal to it.

The purpose of the Food Clinic, as stated before, was first to aid in the medical treatment of the ambulatory patient by interpreting to him the doctor's food prescription. As time went on, material and methods were developed to make the teaching of the patient more effective. As many workers and students in the fields of nursing, medicine, dietetics, social work, and public health became interested in the teaching procedures of the Clinic it was found necessary to establish teaching programs for students.

In 1926 many of the hospitals in and near Boston sent their graduate dietitians to the Food Clinic for training periods of three or four weeks. Later many came for longer periods of study, attracted by the type and scope of the work. Students came from various hospitals and colleges, and were given credit for their work. Also, at about that time, the Rockefeller Foundation began sending its fellows from hospitals in various foreign lands, for periods of six weeks or more. Other graduates came for courses much as they attend workshops today. In 1933 a request was received from a graduate student for a year's course to prepare herself for food clinic work instead of for hospital dietetics. She became our "guinea-pig," for the course given her was the first one organized to teach outpatient dietitians. After that other graduate students came for a year's training, and in 1936 the Food Clinic Course in Applied Dietetics was approved by the American Dietetic Association. Requirements for acceptance in this course are similar to those established for students in hospital training, and the course is reviewed annually for approval by the Association's Educational Director.

The demand for training increased, and in addition to teaching the individual student, classes for larger groups of students were formed. The Food Clinic has become a teaching center for medical students from Tufts College Medical School, students from Simmons College School of Social Work, students in home economics from Simmons College and the State Teachers College in Framingham, students in public health from Massachusetts Institute of Technology, and various groups of nurses. Physicians studying in Boston under the Bingham Fund come for lectures and discussion of the application of the newer findings in nutrition, and students from Harvard School of Public Health, for lectures and field study.

So when I was asked, Why has the Food Clinic lived? I could answer that the service it gives to meet the interest of its students helps to keep it alive. Whether the teaching be individual or group there is the necessity of keeping abreast of the work in the respective fields of the students.

Many community organizations interested in the health of their members sought the assistance of the Food Clinic dietitian. For the first time such clinics were established in community organizations, staffed by members of the Boston Dispensary Food Clinic. There are constant requests for courses and talks from many sources in the community—women's clubs, settlement houses, church and parent-teacher organizations and others. Even the daily newspaper is willing—in fact, eager—to devote space for interpreting to the public, by printed word and picture, the principles of nutrition, using technical terms as they are used in the Food Clinic.

Why has the Food Clinic lived? Because the Food Clinic philosophy has been carried into the work of the community to answer the need there as in the clinic.

The economics of family life has always interested me, and the problem of proper nutrition touches upon every phase of the socio-economic life. In a course at the London School of Economics I became more aware of the questions of price, standards of living, income, monetary and credit policy, taxation, and other problems which have a place in the intricately woven social and economic pattern of the patient in the clinic. No need in our economic life so pressing as the need of food can be separated from the variable play of economic circumstances. Economic trends and movements, whether on an international, national or local scale, must concern the dietitian. For we know that our patients are consumers, that the largest portion of the income of most people is spent on food, and that the lower the income the higher will be the percentage required for food. There is but one solution: the income must be sufficient to provide adequate amounts of the right kinds of foods.

Food cannot be considered apart from the social and economic environment of the individual, any more than it can be considered apart from his physiological needs. No food clinic, therefore, can live without realizing that an adequate wage or income is the only economic basis for successful treatment.

"The stress of a psychological situation influences emotion, alters the direction of thought, modifies the code of values."[2]

[2] Campbell: Human Personality and The Environment.

Unhappy mental attitudes due to economic and social factors impede dietetic treatment which cannot become effective until the patient approaches a normal mental state. A food clinic dietitian must have a definite and full knowledge of the relation of the emotional life to food habits; and also an awareness of emotional problems, if the dietetic treatment is to be successful; and she must work in close association with the psychiatrist.

Why has the Food Clinic lived? Again, because the patient is treated not from the physical side alone, but with appreciation of psychiatric problems as well.

An assistant superintendent of one of the large hospitals said, "The way to make the Food Clinic live is to convince the hospital superintendent that it saves money." It does save money, for many ambulatory patients can be treated without the greater expense of hospitalization. Another superintendent reopened his clinic during the depression to decrease his hospital budget. And so the query, Why has the Food Clinic lived? is answered again: Because the budget plays an important part in the organization of an institution and the Food Clinic service helps to keep the budget lower.

Finally, the dietitian must keep abreast of work in the various fields of science and affairs which are related to the activities of the Food Clinic. She must recognize the accelerated progress in research and the application of its findings, the progress made in the social viewpoint as shown in such reports as that of Sir William Beveridge in Great Britain and the report of the National Research and Planning Board in this country, and the advances in educational methods, as in visual education. Her work is alive because she deals not with theory alone, but with human beings. Each new development in her work implies a growth within the worker herself, which in turn gives impetus to the growth of the Food Clinic.

Today, as the result of our experience in peacetime, we are able to make the service of the Food Clinic effective in wartime by the interpretation of the nutrition program of the Government.

In considering the role of the Food Clinic, I should like to quote the following statement by Glenn Frank: "The interpreter stands between the layman, whose knowledge of all things is indefinite, and the investigator whose knowledge of one thing is authoritative. The investigator advances knowledge. The interpreter advances progress."

Nutrition Education in Wartime. The lot of those who are entrusted with nutrition education is not a very happy one these days. It is, in fact, like that of a weather forecaster in a rainy season uninterrupted by sunshine. When rationing and shortages prevail people instinctively seem to enjoy complaining and pay no attention to the task of acquiring some nutrition information which can help them to overcome shortages and adjust themselves to rationing. People do not complain because they are mean or spiteful, but simply because human nature has its limitations.

If we were perfectly rational animals, nutrition education would indeed be very simple. After seeing an exhibit entitled "Food for Health," or after a lecture on the scientific evidence for need of good food habits, your attitude toward food would presumably undergo a thorough change. After observing the bad consequences resulting from a poor diet and the benefits to health and development which crown those animals that were good and ate the proper food, as shown in the exhibit, you would promptly learn and act wisely for your own good.

As we all know, people do not behave in that fashion. People see or read about deficiency diseases and the rewards in health and welfare that fall to those who eat balanced meals but persist in their old habits, not wishing to be bothered. If indeed man were wholly rational, life would be easy and simple. Unfortunately, man is far from being that. Human nature being what it is, people may know all about good diets and yet persist for years in eating habits which ultimately undermine their health.

We must not gain the impression, however, that man is always stubborn or irrational. Men do learn by experience and in the course of time do change their habits. It may be desirable to point out here that even though most people show a remarkable resistance to knowledge or to new ideas, the bulk of our population has learned a good deal about nutrition. Practically every housewife in the country knows nowadays the meaning of food groups. People have also learned that it isn't the appearance or the kind of food that matters, but its composition. They have also learned what starches, fats, and proteins are—not that the average person knows these facts adequately or scientifically, but he knows enough to make use of such information. People also know that food contains what are known as vitamins, and that they are minute substances present in the food and essential for health and well-being and important to the proper growth of children. The average housewife also knows that there has been a revolution in kitchen practices and that the old methods of cooking were not always the best. People have learned that fruit and vegetables should not be treated as relishes but as important components of the daily diet. They have learned that milk is not merely baby food but that milk and its products should be included in everybody's diet. None of these lessons may seem important or impressive. Yet it took science many years of experimentation to discover and verify every one of these general statements.—*Excerpts from an address by Dr. Mark Graubard at Labor's Conference on Food and Nutrition, Boston, October 9, 1943.*

ARMY HOSPITAL DIETS—PAST AND PRESENT[1]

A. J. LORENZ
Director, Nutrition Research, California Fruit Growers Exchange, Los Angeles

WHILE in the armed forces both the sick and the well have the advantage, today, of over-all dietetic supervision, the feeding of the hospitalized soldier has had a longer history of dietetic supervision, whether or not always wisely conceived in the light of our modern knowledge of nutrition. Occasionally we might profitably review the methods of the past since knowledge is based on experience.

Xerxes, the Persian conqueror who invaded Greece thousands of years ago, knew nothing of the chemistry of dextrin, but he knew enough to provide his troops with a "K" ration of parched grains when his specially trained bakers were unable to supply them with "wholesome fresh-baked bread." Parched grains served Caesar's Roman armies and were advocated and used in the Civil War, by both the North and the South.

If we examine some of the old hospital diets we find that the first specific mention of food purchases is that of milk, recorded in the "Annual Accompt Booke" of Christ's Hospital, London, January 1554. Milk at that time cost threepence a gallon.

The oldest authentic hospital food list on record (circa 1550) is that in Sir Norman Moore's *History of St. Bartholomew's Hospital*. Here we find that the patients received "pork, mutton, ribs of beef, salted and pickled herrings, bread, rye flour, and beer."

The first complete record of a typical day's menu also is that for St. Bartholomew's, about a hundred years later (1686). It consisted of: 10 oz. bread; 2 oz. butter; 16 oz. pottage [soup]; 4 oz. cheese; 3 pt. beer. Women patients were allowed one pint of beer or a choice of gruel in its place as late as 1868 (Bellows, *Philosophy of Eating*, p. 277).

Dr. J. C. Drummond, in his analysis of the above diet in *The Englishman's Food*, computes the nutritive value of this 2600-calorie ration, including the beer, as follows:

Protein	80.0	gm.
Fat	110.0	gm.
Carbohydrate	348.0	gm.
Calcium	1.9	gm.
Phosphorus	1.85	gm.
Iron	12.0	mg.
Vitamin A	5100	I.U.
Thiamin	630	I.U.
Ascorbic Acid	10.0	mg.

to which we can now append values for riboflavin, 2.40 mg., and niacin, 14.82 mg.

The English workman of these times knew or cared little about vegetables other than an occasional cabbage or onion. Porridge, broth, and pottage were the mainstays of the diet—just as beef, bread, and beer, the three "B's," were the mainstays of the more prosperous gentry.

There was no general concept of the nutritive or therapeutic value of vegetables other than those values shrouded in the mystery of the old herbals. They were thought of more in a pharmacological sense than as anything concerned with nutrition. Many common vegetables and fruits were listed as "simples" and "specifics," such as scurvy grass and "portyngalles" (or "Portuguese orrynges") and "Sicilian limmons" to "repress the flame [fever]."

Thus Dr. Bernard Lynch in *A Guide to Health* (1744), one of the earliest strictly dietetic texts, defines the dietetic properties of fruits and vegetables virtually in pharmacological terms:

Apples are pectoral, cooling, laxative, and open the Breast; they differ considerably in Kind, and their Qualities are easily known by their Taste.

Pears have most of the same Qualities, but they are more cordial, by their high Flavour, than Apples.

Peaches are likewise cordial and pectoral; the best are those that are odoriferous, well colour'd, and full ripe.

Apricocks quench Thirst, excite Appetite, provoke Urine; their Kernels are good against Worms, and excellent for the Heart-burning: unless they are mellow and full ripe, they are rather somewhat styptick.

Plumbs purge Choler, extinguish Heat, take away Thirst in Fevers; but they are bad for weak and cold Stomachs, and for phlegmatic Persons, and such as are subject to Colics. Those of the austere Kind are astringent.

Currants are good in spitting of Blood, extreamly cooling, and somewhat astringent. The Jelly or Rob of Currants mix'd with Water, is an excellent Drink in Bilious Fevers.

Strawberries, by their fragrant Smell are Cordial. Their Juice mix'd with that of Limons in Spring-Water is an admirable Drink in bilious Fevers.

Oranges that are sweet are more relaxing than the *Seville* Oranges; but these last are an excellent Remedy for the hot Scurvy. The sweet Oranges increase Choler.

Citrons or *Limons* excite Appetite, stop Vomiting, cut gross Humours, are good in Fevers, and their Juices are more cooling and astringent than those of Oranges.

Grapes taken in moderate Quantities when ripe, help the Appetite and Digestion; but in great Quantities, they dissolve the Gall too much, and produce Fluxes; and dry'd they are pectoral.

Fruits were regarded with suspicion. "And fro frutis hold thyn abstinence" we read in the *Gouernayle of Helthe*, written in the fourteenth century, according to the teachings of Galen. The reason for this belief was based primarily on correlation. Diarrheas and fluxes grew in virulence as the summer progressed, and at the same time fruits were beginning to ripen. Consequently, fruits and even vegetables were blamed for the gastro-intestinal ailments which actually were due to bacteria-laden water of the summer days. Perhaps this (water contamination) also explains the use of beer in British hospital diets, even in our time, although Dr. Bellows of Harvard was a bit more charitable in condoning it when he remarked: "Beer is served in London hospitals by the necessity of some beverage which would at least cover up the taste and smell of London's water."

There is little point in following the St. Bartholomew's Hospital diet chronologically. We can skip a century or two and still find it more or less the same. By 1860, apparently only a slight improvement in the nutritional value of "The Common Diet" of St. Bartholomew's Hospital had been made, through the inclusion of potato broth alternating with a pea broth four times a week. Bellows, in his *Philosophy of Eating* (1867), lists the St. Bartholomew's Hospital diet, which differed but little from that of St. Thomas', Guy's, Westminster, St. George's, Middlesex, King's College, London, and North London hospitals of that day.

There is small wonder that scurvy was rampant on such diets and yet its connection with a faulty diet virtually had to await advances in sanitation. For some time I have held that nutritional discoveries could not have been made until sanitation, or perhaps better still, bacteriology, had made enough progress to permit recognition of differences between cause and effect. There is some truth in the rather broad statement of Dr. J. E. R. McDonagh a few years ago, that "had the trend of medical research always been in the direction of *correlation* instead of *differentiation*—the terms 'vitamin' and 'hormone' would

[1] Presented before the California Dietetic Association, Los Angeles Section, August 12, 1943. Lack of space prevents publication of this paper in full. However, reprints *in extenso* will be available without charge on application to the author at the California Fruit Growers Exchange, Los Angeles.

St. Bartholomew's Hospital

COMMON DIET

Milk porridge, 12 oz. bread, 6 oz. mutton or beef, 1 pt. broth with peas or potatoes, 4 times a week; 2 pt. beer for men, 1 pt. for women; 1 oz. butter thrice a week.

THIN OR FEVER DIET

Milk porridge, 12 oz. bread, 1 pt. milk, with tapioca, arrowroot, sago, or rice, as may be prescribed; barley water.

BROTH DIET

Milk porridge, 12 oz. bread, 2 pt. broth, 1 pt. beer, 1 oz. butter.

MILK DIET

Milk porridge, 12 oz. bread, 2 pt. milk, with tapioca, arrowroot, sago, or rice; barley water; 1 oz. butter, bread pudding 3 times a week when ordered.

never have been coined." Iodine has a basic claim to being a vitamin just as much as pantothenic acid or riboflavin; fortunately, or unfortunately, it was recognized as a chemical entity before it had been merely surmised to be a mysterious factor the presence of which in minute amounts is essential to health just as it is fatally toxic in large amounts.

We often wonder why a woman's craving for a lemon or an apricot should have been regarded during the Middle Ages as diagnostic of pregnancy. We find that Jacques Guillemeau in 1612 tried to rationalize this "longing of the woman with child . . . after sharpe things, as vinegar, citrons, and oranges," and even commented on the "pica" or craving for calcium—"if the Malancholie be adust shee desireth Coles, Ashes and Plastering." Many nutritionists today interpret the craving for "sharpe things" as a physiological demand for vitamin C, and it has been reported that the first food requests of captured German and Italian prisoners in the North African desert campaign was for "something sour"—"it seems as though they can't get enough vinegar or fruits."

Appetite alone, until comparatively recently, was regarded as the true index of the trustworthiness of a food for the sick, but appetite was not trusted as to quantity. Whether or not we accept the belief of some nutritionists that appetite may be an index to dietary deficiencies, the almost completely forgotten history of "The Strawberry Fund" of Civil War Days may be of interest.

Recently we acquired a rather complete file of the publications of the United States Sanitary Commission organized in June 1861 upon the recommendation of the Surgeon General as a civilian volunteer effort, a sort of cross between the Red Cross and the U. S. O. of today. Its chief objective was to minister to the comfort of the wounded, though later it became the agency for rehabilitation of discharged soldiers of the North. In the Civil War the Sanitary Commission printed Professor Horsford's *The Army Ration*, one of the earliest source books on army feeding. Dr. Horsford, Harvard professor of what would now be known as biological chemistry, not only devised menus of dehydrated vegetables to supplement the old "Ration of 1812" but suggested their compression to save transportation space.

The Sanitary Commission campaigned vigorously during the Civil War for the inclusion of more fresh fruits and vegetables in the monotonous field ration of the northern soldiers and pointed out that the soldiers were "near to scurvy."[2] This adduced the first evidence, empiric to some extent, that wounds of scorbutic soldiers heal slowly if at all.

Thus, in the *Sanitary Commission Bulletin* of March 1, 1865 we read: "The question is often asked, and with great seeming grace, 'Why does the Sanitary Commission waste the people's money in sending supplies of vegetables and other antiscorbutics to the army, when it is well known that the Government issues these stores with the greatest liberality, and on the largest scale?' "

The following extracts from a book on military surgery by a man who for several years has held a high position on the Army medical staff, answer this question:

> In the Army of the Cumberland, the surgeons, however, had been long reporting from week to week, the pressing necessity for vegetables: but we could not learn that any of these reports had ever been seen or read by the commanding officers, and when it became our duty to call the attention of corps commanders, and even of the Commander-in-Chief of this Army to the facts, with few exceptions, they confessed their entire ignorance of the true state of affairs. Even the Commissary General of the Army, who received and distributed the supplies, fully believed that the soldiers had plenty of vegetables; and that, when they had not received more than three full rations in twelve months.

It was pointed out again, in an April 1863 report, that:

> Extraordinary efforts and attention were now directed to the matter . . . which at a fair computation would give one full ration of potatoes to every soldier in the command on every alternate day. . . .
>
> We ought to mention that, during the periods when the Army of the Cumberland was in need of fresh vegetables, the U. S. Sanitary Commission was constantly supplying the General Hospitals in the field, the Post Hospitals, the Convalescent Camps, and to some extent the Regimental Hospitals, with potatoes, onions and other vegetables; and when, in the early part of April, 1863, we notified Dr. Read, the Chief of the Sanitary Commission of that department, of the urgent need that fresh vegetables should be supplied to the troops themselves who were in the field, the Commission responded with a promptness and liberality which

[2] *Editor's Note:* In a more recent communication, Mr. Lorenz refers to an excerpt from an appendix to an original treatise (hitherto unpublished), *The Natural History of Coffee, Thee, Chocolate, Tobacco* (1682), entitled "A Tract on the Way of Making Mum With Some Remarks Upon That Liquor," available in facsimile reprint form from Mr. Lorenz, who states that "mum," often called "Brunswick Oat Beer" in the 1600's, is similar to, if not identical with "spruce beer" and that the above-mentioned appendix aids in authenticating the now highly controversial spruce beer formula which has appeared in various publications and clarifies another debatable point—the date when spruce beer was first used as an antiscorbutic. In his introduction to the facsimile reprint, Mr. Lorenz states: "Today, under the impact of wartime limitation of imported food supplies, countries less fortunate than our own in obtaining citrus fruits, again have turned to what seems to us "very unusual" sources of the antiscorbutic vitamin. Thus we read of British recipes for "Glossop Pudding" made of sour-dock, and of English school children gathering the hips of the wild rose, of Russians extracting vitamin C from green walnut shells and of their drinking pine needle tea.

"This latter source brings to mind the inclusion of 'spruce beer' as an integral component of the ration of George Washington's Continental Army. By following the directions of the original recipe, reproduced in facsimile on the following pages, it was found, upon analysis, that this bitter decoction furnished approximately 40 mg. ascorbic acid per quart (the amount issued per day), or the equivalent of a little less than 3 oz. fresh citrus juice."

Mr. Lorenz also mentions other references to spruce beer which appear in Commissary Wilson's Orderly Book, "*Expedition of the British and Provincial Army, under Maj. Gen. Jeffrey Amherst, against Ticonderoga and Crown Point*" (1759), which was loaned to him by Mr. Warwick Carpenter, Santa Barbara, California. For example, at Fort Edwards, on June 11, 1759, the General Orders referred to spruce beer as follows: "Spruce Beer will be Brewed for the Health and Convenience of the Troops, which will be served at prime Cost; 5 Quarts of Mollasses will be put into every Barrel of Spruce Beer; each Gallon cost nearly 3 Coppers." At Crown Point, August 17, 1759, General Orders included this reference: "Four Barrells of Spruce Beer shall be constantly kept at different Places in the Fort that the Men at Work may be supplyed when they want it on paying a Half-penny per Quart; this Beer to be sent from the Brewerie and none suffered to Drink without paying for it."

were most gratifying, and which demonstrated the value and importance of their organization. It was understood that the army was preparing to advance, and an important battle was anticipated; under these circumstances, there could be no delay, if the troops were to be *put into a healthy condition before the action occurred*. The Sanitary Commission was notified of our wants on the 11th of April. On the 13th we were informed. . . . . there would be "immediately forwarded large shipments of vegetables for Gen. Rosecrans' army by railroad and by boat." On the 16th, 130 barrels arrived at Murfreesboro; and from this time, for several weeks, they continued to arrive at the rate of about 100 barrels per day, and were distributed directly to the troops by the agents employed by the Commission!

The following quotation taken from Hamilton's *Military Surgery*, 1865, is a significant medical research contribution forgotten, through the years, until 1937, almost 75 years later, when Lanman and Ingalls, of Boston, and others showed the direct relationship between nutrition and rate of wound healing:

The result of the more free introduction of fresh vegetables into the Army of the Cumberland was, that very soon the cases of scurvy were found to diminish in frequency and in severity; and when, on the twenty-fourth of June, the troops were moved forwards and an engagement with the enemy occurred, the wounds received by the soldiers healed more kindly and were followed by fewer accidents than had been the case after previous battles.

Nor do books have to be old to permit us to judge the failures of the past and explain them in terms of our present-day information on vitamins and minerals. In Irvin Cobb's *Exit Laughing* one finds an excellent description of a case of scurvy with which Cobb's Uncle Joe Shrewsbury became afflicted and which his gifted nephew failed to diagnose. Cobb writes:

In a section where cornmeal in some shape was a daily staple on every table, he [Uncle Joe] never touched it in any shape. Once he told me why. For the last six weeks in Virginia before the surrender [of Lee] he lived on an exclusive diet of gritty hoe cakes and, after the meal ran out, on the parched grains. When from this his gums were so bloody and his teeth so sore he could no longer chew the ration, he lay one night in an abandoned stable.

Elsewhere in the Sanitary Commission's reports one finds frequent mention of purchases of "two boxes of lemons for convalescing troops," and the raising by patriotic New York civilians of a "Strawberry Fund" to purchase twenty thousand boxes of berries for returning troops "who craved succulent fruits after the hardships of their campaigns." The "Strawberry Fund" and the "Fruit Collations" were sponsored by the New York City Union League Branch of the Sanitary Commission, headed by Theodore Roosevelt (the father of President Theodore Roosevelt) and aided editorially by the New York *Times* and the New York *Herald*. On May 30, 1865 the New York *Times* reported:

The greatest success attends the operations of the now famous strawberry movement, inaugurated by Col. Vincent Colyer, of the New York State Agency. Troops are daily supplied with large quantities of this delicious fruit and the boys seem much pleased at the kind thoughtfulness of those who have furnished them with a delightful treat, and exhibit an interest in their welfare.

Yesterday morning Col. Colyer struck camp at an early hour, and moved his forces upon Washington Market at 4 a.m., and shortly after his arrival the struggle commenced. The State Agent was determined that he would have a full supply of cherries and strawberries, and with that end in view began a thorough movement, and with such success that in a few hours he had complete possession of Washington Market, the fruit-dealers having surrendered at discretion. This point gained, the process of buying up the fruit was carried on until not a strawberry could be got for love or money. The soldier's agent had them all. Notwithstanding, the loss of the market people was so complete, he estimates his loss at nine hundred dollars, and some idea may be gained of the quantity of fruit thus secured the soldiers.

Col. Colyer visited the barracks at the Battery, and distributed to the Massachusetts troops lying there several cart loads of strawberries, amidst a scene of the greatest excitement and uproarious enjoyment. To see these gallant and sunburnt boys in the army blue eagerly rush for strawberries, and enthusiastically eat the same, was a sight indeed. . . .

It is to be hoped that the strawberry movement will not be allowed to die out for lack of funds. Give the State Agent the means, and he will furnish every soldier who passes through the city a plenteous feast of ripe and luscious strawberries.

On June 20 of that same year, the New York *Herald* made the following editorial comment:

The State makes no provisions for the fruits, vegetables and other little and inexpensive additions to the regulation hard-tack and salt meat, which are so welcome to the travel-worn men, but make no part of Government rations. A very few thousand dollars would be abundant for all these. The soldier on his way home is far more thankful for a good supper, a good lodging and a good breakfast than he would be for an empty municipal pageant.

The New York State Agency of the U. S. Sanitary Commission cared for 187,155 returning soldiers from May 1863 to August 1865 and served "garden sass meals" to some 60,000 men during the months of June and July 1865, we read in Colonel Colyer's accounting of the "Reception Fund to provide fruit, music, and other luxuries."

Some comparative figures on the cost of certain luxuries might also be of interest. For example, a barrel (40 gallons) of pickles cost $20, a case of a dozen bottles of brandy $15, a case of a dozen bottles of whiskey $10, a case of lemons $18, and a barrel of "lint" $10.

The Sanitary Commission's operations are explained by the diets of the Military Hospitals of the Civil War. The dietetic program of one of these, the Hampton Hospital at Fortress Monroe, is described in *Harper's New Monthly Magazine* for August 1864. Hampton Hospital was organized August 14, 1862 and consisted of "thirty cottage houses each 125 feet long and 25 feet wide, each comprising a hospital ward of 50 beds" together with convalescent camps of tents, two diet kitchens, nurses' quarters, linens buildings, etc. In a year and a half, some 6540 wounded men and patients were treated, of which 216 died, 1049 were discharged on account of disability, whereas 4491 were returned to duty as cured. This was not a field hospital and received only such casualties as had survived the grueling trip from the field hospitals in the springless ambulances, carts, and wagons of that day.

In 1864, army hospital diet kitchens were not yet 10 years old. The dietitian as well as the nurse owes a debt to the memory of Florence Nightingale, for it was through her efforts that the first diet kitchen was set up in Scutari (1855) to provide food for the sick and wounded British soldiers in the Crimean War (West and Wood, *Food Service in Institutions*).

Food, as well as medicines, was prescribed by the surgeon and the Hampton Hospital "Diet List" will show "the variety from which a selection may be made for those whose failing appetites call for delicacies":[3]

Chicken soup	Rice and milk
Mutton soup	Boiled potatoes
Beef soup	Baked potatoes
Oyster soup	Tea with milk
Beefsteak	Coffee
Ham	Boiled milk
Eggs, boiled hard	Cocoa
Eggs, boiled soft	Farina
Milk toast	Cornstarch
Buttered toast	Crackers

The foods, the writer in the same magazine continues, were divided into three classes of diets: the "Full Diet"

[3] *Harper's New Monthly Magazine*, p. 312, Vol. 29, June to November 1864.

for convalescents "who can safely eat the full amount of food which a healthy man requires"; the "Half Diet" for those "who are so feeble and whose appetites are so delicate that they eat less hearty food and not more than half the ordinary amount"; the "Low Diet" for those "who can take but little nourishment, and that of the most simple kind." (There is an interesting woodcut of the "low diet kitchen" which dietitians might like to compare with the special diet kitchens of today.)

Here are three diet lists for any given Monday at Hampton Hospital:

FULL DIET LIST	HALF DIET LIST	LOW DIET LIST
Breakfast	*Breakfast*	*Breakfast*
Coffee with milk	Coffee	Tea or cocoa
Cold meat	Bread	Bread or toast
Bread	Butter	Butter
Dinner	*Dinner*	*Dinner*
Pork and beans	Mutton soup and meat	Farina gruel
Bread pudding	Potatoes, boiled	Bread
	Bread	
Supper	*Supper*	*Supper*
Tea with milk	Tea	Tea or cocoa
Bread and butter	Bread and butter	Bread or toast
		Butter

Such was the food which the Government provided. It was the "basic ration," which, however, could be "supplemented with delicacies" from the "Hospital Fund," amounting to about $2 a month per patient, described by the writer of the article as follows:

> This "Hospital Fund" deserves especial notice. The Government allows the hospital to draw a certain amount of food, called rations, for every patient in its wards. But sick men cannot eat the full amount they are entitled to. As the surgeon in charge makes requisition only for the amount really needed, there is a constantly increasing supply left in the store-houses, to which the hospital is entitled. As the cost price of these rations is credited to the hospital there is thus a fund accumulated. The surgeon in charge cannot draw for this in money, but he is entitled to call for its value in such delicacies, for the use of the hospital, as he may deem desirable. Take for instance the month of July, 1863. There were then 1800 men in the hospital. The fund that month amounted to $3930.71. The whole amount was immediately drawn for the use of the same men in such varied delicacies as the appetites of the sick crave, in fruits, jellies, preserves, etc. In addition to this the Sanitary Commission has come in with its refreshing supply of warm and comfortable clothing and of tempting food.

Just as the Civil War is removed by years from the war today, so are the hospital diets of the two wars separated even more widely by more than 80 years of a rapidly developed science of nutrition. Army hospital diets of today are based on nutritional adequacy. Even the Overseas Hospital Ration, with all the limitations of transportation and cargo space, plus that of having to be equally available for use in tropical jungle or arctic waste, is pointed toward the best that the science of nutrition has to offer our casualties. The administration of additional vitamins beyond those obtainable from the food offers no problem in the Army hospital, although it meets the resistance of the fighting man, who frowns on "taking pills when I'm not sick."

The February 1943 JOURNAL of the American Dietetic Association and numerous other current articles are concerned with such subjects. Compare a typical Overseas Hospital Ration of today with the "Full Diet" of Hampton Hospital, merely by placing them alongside each other.

HAMPTON HOSPITAL FULL DIET LIST	OVERSEAS HOSPITAL RATION TODAY
Breakfast	*Breakfast*
Coffee with milk	Grapefruit
Cold meat	Oatmeal
Bread	Milk
	Pork sausage
	Hot cakes
	Bread
	Butter
	Syrup
	Coffee
Dinner	*Dinner*
Pork and beans	Dehydrated soup
Bread pudding	Crackers or croutons
	Chile con carne
	Buttered rice
	Spinach
	Vegetable salad
	Salad dressing
	Bread
	Butter
	Sliced pineapple
	Coffee
Supper	*Supper*
Tea with milk	Spaghetti and tomato sauce
Bread and butter	Sliced cheese
	Carrots
	Bread
	Butter
	Vanilla cake
	Tea

A glance is sufficient, there is no need to *analyze* these "full" diets for their nutritional shortcomings. In brief, the fundamental differences between the diets of Civil War hospitals and Army hospitals today are:

1. A vast improvement in the sanitation of food service.
2. A complete change in the concept of the role of food in sickness—from the mistaken idea that "Nature takes appetite away as a clear intimation that food will no longer be beneficial but injurious."
3. A decrease in the carbohydrate and fat content, and a better appreciation of protein requirements and of protein foods.
4. The addition of milk and a consequent increase in riboflavin intake.
5. A most significant change-over from a scorbutogenic dietary regime providing approximately 10 to 20 mg. ascorbic acid a day, to providing 70 mg. and more.

One of the first medical men to raise his voice against the subtle starvation of patients was Dr. J. M. Fothergill, in his *Manual of Dietetics* (1886): "We starve our patients into exhaustion, and bemoan the fact that death is due to exhaustion of the body's store of energy."

It was this same Fothergill who also said in one of his many lectures on dietetics to the nurses of the City of London Hospital for Diseases of the Chest, something that might stand as a motto: "No woman yet ever made a dish palatable which she prepared unwillingly," and "no attractiveness in the viands can compensate for a dirty plate or a soiled cloth."

He decried the "apathy of medical men on the subject of food in sickness" and concluded his manual with a British tribute to the pioneer American dietitians: "There is a better prospect in the United States where the subject of dietetics is in a much more advanced condition. As soon as the knowledge of foods and how to use them comes abreast the preparations on the market, then a revolution in the feeding of the sick and infirm will be wrought. And the writer's concluding sentence is the expression of his belief that "that much-to-be-desired revolution is close at hand."

Perhaps the dietetic gap between the past and today has been closed up and the royal road to good nutrition now is permanently paved with vitamins and minerals, all laid on a firm foundation of adequate protein, fat and carbohydrate, with enzymes as road markers.

DINING WITH SAMUEL PEPYS IN SEVENTEENTH CENTURY ENGLAND

MARGARET ALBERI FLYNN

Mrs. Flynn, a member of the American Dietetic Association, received the bachelor's degree from the College of St. Catherine, St. Paul, Minnesota, in 1937 and the master's degree from the State University of Iowa, where she studied under Dr. Kate Daum. She was Director of Nutrition at the College of St. Catherine and later was awarded a research fellowship in pediatrics at the State University of Iowa. At present she is at Hot Springs, Arkansas, where her husband, Major Joseph E. Flynn, Medical Corps, A.U.S., is stationed. Concerning the paper presented herewith, Mrs. Flynn writes: "Just having reread The Diary and Correspondence of Samuel Pepys, Esq., I realize what a wealth of information it holds concerning the eating habits and the foods popular in the late seventeenth century. True, it is written entirely from one person's point of view, and the account is largely of his own habits of eating. Nevertheless, it should prove interesting to students of the history of nutrition, as an example of the diet of that period."

The author has painstakingly carried out the task which she set for herself, and has included copious references to early English literature other than Pepys' Diary. It is a pleasure to publish her findings and we believe that the work will be welcomed by readers of this Journal, as a valuable addition to the literature concerned with the history of food practices.

IT HAS been said that if the poet is free to sing, it is because some woman has taken the responsibility of the background of his life: has cooked his dinner, and raised his children to respect his necessarily quiet home. Poets, historians, and writers of social life have been the sources of our knowledge of foods and nutrition of the people of centuries past. *The Diary and Correspondence of Samuel Pepys, Esq.* is a rich source of information as to the cuisine and dining of seventeenth century England, for along with his appreciation of good living, Pepys considered the delights of the table all-important.

To provide an adequate background of English food habits prior to the time in which Pepys lived (1633–1703), a brief review of medieval cookery is in order. Jeaffreson, in his *Book About the Table* (1875) informs us that the concoctions were Roman in principle and detail: continual use of the pot, and less frequently, the spit; use of cereals, grains, corn, in broths, hotchpotches; several meats of incongruous flavors combined in stews and mixed dishes; use of minced and pounded small pieces of meats; practice of roasting before boiling and boiling before roasting; utilization of strong spices so as to smother the natural flavor of foods; coloring and flavoring with saffron; use of honey in meat sauces; exaggerated preference for the greater fish or fowl rather than the smaller, and for unappetizing birds of fine plumage rather than tasty birds of less attractive plumage.

These principles of cookery prevailed in England until the period of Queen Elizabeth; slight modifications and new foods from other countries were then gradually introduced. Northern Germans were great consumers of butter, and are credited with introducing it into England. Thomas Cogan's *Haven of Health* (1596) calls butter "gold in the morning, silver at noon, and lead at night." Butter, in fact, was used to excess in English cooking.

Spices were also used to extremes in Old English cuisine; these included cinnamon, mace, cloves, ginger, cubebs, cardamon, caraway, nutmeg, galingale, pepper (from East Indies via Venice and Genoa), and two compound powders similar to modern curry powder. The most highly valued spice was saffron, even though its flavor was mild. Called "Prince of Herbal Medicaments," saffron was used to color broths, soups, hashes, stews, bread, fruit pies, pastry, "mortrews" and puddings a yellow of varying degree. Saffron was used as a medication against all ills, even the plague; its culture was laborious, costly, and even dangerous. The crocus bulbs were usually expensive; every year they were planted in July, re-set in rows in August, the blue flowers picked by hired labor, the chives removed, the "yellows" separated from the worthless blue petals, the chives and filaments dried, pressed into cakes, and sold. In the seventeenth century this coloring and condiment was still very much in demand. In the years of scarcity, its price was prohibitive to any but the rich. The culinary use of saffron subsided gradually, but even now crocus chives are used to tinge cakes or breakfast buns to give them an "eggy" look, and saffron bread is still a popular item in the typical Cornish dietary.

Fear of death from food poisoning served as the basis for "assay" or "credence" or "tasting"; no great personage, in fact, would eat or drink anything that had not been tested by an official taster. Tasting began in the kitchen; brought to the table under supervision, all edibles, down to the very salt, were again tasted by an officer of assay in the presence of those who were to consume them. Incidentally, the original purpose of dish covers and pot lids was to guard the contents against poisons.

Menus of this period's stately banquets had three courses, with eight to twenty different foods in each course. Inferior dinners had two courses. Jeaffreson says that "three-fourths of the foods were served in form of pottages, mortrews, chewets, messes. The rest were chiefly sweet puddings, crustades, fruit mashes, and standing compotes. With the exception of boars' heads, brawns, and joints of venison, the largest birds, such as the swan, crane, and peacock, and the largest fishes, such as the porpoise, sturgeon, and turbot, which creatures were served whole or with the appearance of entirety, the early table seldom displayed any 'pieces' of great magnitude, though haunches of venison were often served whole, quite as often as they were dished in gobbets with frumenty or thickened broth. The same was the case with the pestels of venison and the joints of beef and mutton, which, though figuring in the bills of fare as stately masses of food, were served in stews, hashes, and 'stir-abouts.'" Usually a fish meal included no flesh (meat), and a meat banquet, no fish. The Church or Crown designated Fridays and Saturdays as fish days; Elizabeth recommended Wednesdays and all the Lenten season as well. It is no exaggeration to say that half the year was designated for fish consumption. Victorian England imposed no fish days, but to this day fish has been a food in general use.

"Subtleties," made chiefly of sugar and pastry, were very popular; and their purpose purely decorative. Usually the figures used served to illustrate fables, maxims, or were intended to be complimentary to the guests. By the seventeenth century these were made of pasteboard. Robert May, a steward for royalty and author of *The Accomplished Cook* (1660), was sufficiently inspired to model a man-of-war in pasteboard, fill it with toy guns coated

with sugar and pastry, and trick it into action, hurling eggshells filled with scented water at the ladies. He also was noted for his "surprise" pies.

Carving was not necessary for early stews and "made dishes," but as soon as joints were served whole, early cookery books had instructions for professional carvers. The terms used were explicit for each meat: "break that deer, lesh that brawne, rere that goose, lift that swan, sauce that capon, spoyle that hen," etc.

Women were not permitted to attend early English banquets, but gradually they infiltrated this masculine stronghold, sitting first at different tables and in different rooms, and finally appearing among the men. Samuel Pepys tells of attending, arrayed in his second best suit, Sir Anthony Bateman's mayoral banquet at the Guildhall, where he looked over "tables prepared for the ladies in a special room." At banquets the custom was to place principal joints and messes at the upper end of the table, above the salt, so that the chief guests could gloat unobstructedly and then partake of the choicest food before the less important were served. When carving at table became fashionable, women were asked to sit at the head and carve, and so usurped the seats at the upper end of the table. By the end of the seventeenth century, ladies at a dinner entered first into the banqueting room and went to the best seats. The Dutch fashion of placing men and women alternately at the table was adopted at the close of the seventeenth century; carving, which requires good muscles as well as skill, passed to the men at that time.

The seventeenth century English believed that "fingers came before forks" and felt that the Italian table fork was fantastic. They fingered their cooked meat. Queen Elizabeth is known to have had at least three small forks, but she fingered her food. Spoons were the sole utensils employed in conveying food to the mouth; however, it was not considered obligatory to provide a spoon for one's guests, and every guest brought his own spoon in his pocket. The apostle spoon (handle fashioned in the likeness of an apostle) was the most popular, usually made of silver for the rich, and of tinned iron, horn, or wood for the others. The sayings, "born with a silver spoon in his mouth," *i.e.* rich, and "he has always fed with a wooden spoon," *i.e.* a poor man who always sat "below the salt" and ate inferior food, were derived from this practice. By the close of Charles the Second's reign (1685) forks were seen on all fairly furnished tables in England. They were usually made of steel, for silver forks were scarce until the nineteenth century. The use of napkins went out as the use of the fork came in. In Charles the Second's reign napkins were folded into many shapes, but the guest offended the host if he were to unfold these fancies. Pepys "missed" napkins at some of the banquets. Plate was scarce at this time, due to the wars, and spoons, tankards, and dishes went into the melting pot. Glass, too, was scarce. Pepys' guests at a banquet in a public eating house ate from wooden trenchers and drank from pots of wood.

Meal hours were very much like ours; people broke their fast on rising, as a rule; then they ate something four hours later, and once again five or six hours after the first great meal. Elizabethan authorities differ as to whether breakfast was eaten by all at the close of the sixteenth century. Breakfast, when eaten, had no coffee or tea until the early seventeenth century. Beer or ale served as beverage. The meal varied with individuals, depending on their prosperity, but usually consisted of a slice of bread, a glass of ale, beer, or dry wine. Pepys speaks mostly of "drinking my morning draft" at some ale house. Jeaffreson tells us that "though breakfast was the common indulgence of prosperous folk in Queen Elizabeth's time (1600), it was not universally taken by all kinds of people. The 'morning draught' at the inn, was, in fact, the ordinary breakfast of the majority of Englishmen at this time. Unless they bear this in mind, readers of old biographers are apt to attribute tavern-hunting propensities to sober and discreet gentlemen [Pepys?] who, though they always opened the day with drink and gossip at an ale house, were no wastrels or ill-livers." Pepys did indulge in breakfast. He mentions breakfast dishes such as these: "turkey pie and goose, mackerel, pickled oysters, beef, cake and ale, collar of brawn, bread, butter and sweetmeats, cold chine of pork, hashed mutton, dish of cold creame, creame and cakes," and he cites one breakfast menu consisting of "neat's tongue, wines of all sorts, ale, anchovies, a barrel of oysters, and gammon of bacon." He also mentions a pot of chocolate several times, which he bought at the inn. Chocolate was introduced into England about the year 1652. In the *Publick Advertiser* of Tuesday, June 16–22, 1657, we read: "In Bishopsgate Street in Queen's Head Alley, at a Frenchman's house, is an excellent West India drink called chocolate, to be sold, where you may have it ready at any time, and also unmade at reasonable rates." Pepys also writes of going into an inn where he "did send for a cup of tee (a China drink) of which I never drank before." *The Mercurius Politicus* of September 30, 1658, says "that excellent and by all physicians approved, China drink, called by the Chineans, Tcha, by other nations Tey, alias Tee, is sold at the Sultaness Head Coffee House, in Sweetings Rents, by the Royal Exchange, London." Tea is said to have been sold in England as early as 1635 at the exorbitant price of from 6 to 10£ a pound, and presents of it were considered appropriate for princes and other grandees until the year 1657. The infusion was taxed at 8 d. a gallon in common with chocolate and sherbet. Pepys drank chocolate and coffee purchased at the coffee-houses in the afternoon, sandwiched in between his two meals of the day. Once he remarks, "home and found a quantity of chocolate left for me, I know not from whom."

Supper, the repast at which soup was served, was the final meal of the day. In the seventeenth and eighteenth centuries, the dinner hour gradually became later and later, until the meal called dinner was eaten at what would have been the Elizabethan supper hour. Hence there arose the necessity for substantial luncheons. Before the riotous living which followed the Restoration of Charles the Second (1660–1685) meals were more formal, with little talk and no lingering at the table. With the extravagant feasting of the seventeenth century, ill manners and wastefulness were prevalent, and whole tables of food were demolished by turning them over; historians agree that English manners had deteriorated under the growing taste for heavy wines and spirits.

Methods of food preparation were two: pot and spit. The early cooks preferred the former both for convenience and thrift. Boiling saved the drippings, as well as the labor of a "turner" of roasting meat. For one dish cooked on a spit, twenty were boiled in a pot; even in modern times, roasts still remain a luxury for the poor. The early roasting spits were made of wood, soon replaced by iron. To be a spit turner was to be the lowliest laborer. Early seventeenth century homes used canine in place of human turnspits. Amusing are the tales of householders being deprived of their roasts and reduced to pot luck when their dog helpers were maliciously lured away from the kitchens. During Charles the Second's reign a machine that was set into action by clockwork was advanced for meat roasting; an instance even of a musical turnspit is recorded. The wheel and the dog, in turn, were replaced by the smoke-jack, and then by the rotating fans.

The English of these times were great consumers of all

types of soups, flesh, fish, vegetables, and all their combinations. Since the pot was the common utensil, pottage was the common diet. The old nursery rhyme,

"Pease-porridge hot, pease-porridge cold,
Pease-porridge in the pot, nine days old"

had a very real meaning at that time. Cold soups were eaten as much as hot ones. A cold soup was allowed to attain a jellied or "set" stage; the best cold soup was that with the greatest number of "brawns" stewed to such tenderness that they melted in one's mouth. Rich meat soups of brawns chopped in "gobbets" and "dices" that floated in a hot fluid thickened with meal and pounded flesh were more like our stews of today. Larger and larger pieces of meat gradually came to be served in pottage. Elizabethan cooks boiled joints to tenderness, and served them in rich meat broth with vegetables. Calves' heads, shoulders, and rounds of beef were cooked whole, and transferred from deep soup dishes into trenchers for carvers' convenience in serving. The modern "joint" in its separate dish owes its place to this transfer from pot to flat dishes.

An English meal for the poorer classes at the close of the seventeenth century might include a piece of boiled beef, which had been salted some days before, and with it five or six vegetables, as cabbage, carrots, turnips, or other herbs or roots, well peppered, salted, and swimming in pottage. Later, this boiled meat and pot liquor were served separately. Pork was the meat used most universally for the pot. "Coddled" to such tenderness by hours of slow cooking that a "straw could cut it," the pieces of meat were bound tightly to prevent disintegration. Exposed to cooling air they acquired a firmness that allowed them to be "soused" for several days in good ale or in beer seasoned with salt and verjuice (the juice of crab apple and sour grapes). The best cuts of pork were used to make this brawn; boned neck pieces became "collar of brawn" and shoulders became "shield of brawn." Fish brawns, made of cold fish-porridge, were made for fast days. Daisy soup was an Elizabethan herb pottage purportedly good for the brain; nettle soup was supposed to induce sleep and aid in relieving coughing; snail soup, made of garden snails, earthworms, scores of herbs and strong ale, was "beneficial to consumptives." Turtle soup became popular after the eighteenth century to such a degree that it was made by a central kitchen and sold on the streets. Pepys speaks often of a "collar of brawn," eaten at either meal, and also of "pease-porridge, sheep's head, neat's tongue, nettle-porridge, stewed beef, haunch of venison boilded, neat's feet, tripe boiled and covered with mustard, ham or French bacon boiled with pigeons, rare pot venison, calf's head boiled with dumplings, oxe's cheek, buttered salmon, udder, and beef and cabbage," all of which were cooked in the pot, and "a good hog's harslet, a piece of meat I love but have not eaten in seven years." (He refers here to the inside pluck, fry, kidney, liver, etc.).

Fish was an important part of English diet at this period, but the recipes were certainly unlike those used today. The oysters were often sugared, pike was prized above all fish, and stews and messes contained a dozen different kinds of fish so that no one ingredient was recognizable. Raw oysters ("natives") were eaten as appetizers, but not in the months of May, June, July, and August, because of their lack of flavor, as well as the belief that they would cause ill effects if eaten during this period. St. James' Day was believed to herald the opening of the oyster-eating season. In some inns in England it has been customary, at least until very recently, to place a barrel of "natives," when in season, on the bar table once a week for those who wished to open and eat them. Sturgeon became the fish of royalty because Henry I reserved it for himself. Red herring was considered a whet to drinking, along with bacon and anchovies. Pepys' diary mentions fish often. He made copious resolutions to observe fast days and all of Lent by eating fish, and proved to be very human in constantly breaking his probably well meant resolutions. He remarks, "Captain Cocke and I had a breast of veal roasted, but the rest would not eat flesh; the King was petitioned by the Fishmonger's Company that Lent might be kept because they had provided abundance of fish for this season, and their prayer was granted." Quite often, however, he ate "a barrel of oysters or pickled oysters, scallops, crab, lobster and prawns, salt sturgeon, three eels, herrings, mackerell, jole of salmon, poll of ling and brace of carps, trout, and crayfish, or anchovies and olives." He writes that "at Southampton we went to the Mayor's and there dined, and had sturgeon of their own catching the last week which do not happen in twenty years, and it was well ordered. They brought us also some caveare [caviar] which I attempted to order, but all of no purpose for they had neither given it salt enough, nore are the seedes of the roe broke, but are all in berryes." A captain "from the Straights sent each of us some anchovies, olives and muscatt, but I know not yet what that is, and am ashamed to ask." On one occasion Pepys observed Good Friday with "sugar sopps and fish," another year with "pease-porridge and apple pie," and once, "ale and wiggs" (a sort of bun).

Once joints came into their own, after graduating from their common soup pot, sauces which are now considered inappropriate were served. Pepys did not care for sweet sauces with his mutton and refused to eat them. Seventeenth century cooks served chicken with verjuice and mutton with mustard. The credit for "knighting" a loin of beef is usually given to Charles the Second (whose portrait shows him in the act of bestowing knighthood on a loin), although some historians claim that Henry VIII placed his sword, instead of a carving knife, over an especially fine piece of the loin. Thus, it is said, the name "surloin" or "sirloin" originated. In the middle of the seventeenth century the chef, Robert, featured sirloin in his Christmas menu for royalty:

Oysters at the entry.
First Course: 1. Collar of brawn. 2. Stewed broth of mutton and marrow-bones. 3. A grand sallet. 4. A pottage of caponets. 5. A breast of veal in stoffado. 6. Boiled partridges. 7. Chine of beef, or surloin roast. 8. Minced pies. 9. A jegote of mutton with anchovy sauce. 10. A made dish of sweetbreads. 11. A roast swan. 12. A pasty of venison. 13. A kid with a pudding in his belly. 14. A steak pie. 15. A haunch of venison roasted. 16. A turkey roast stuck with cloves. 17. A made dish of chickens in puff paste. 18. Two bran geese roasted. 19. Two large capons, one larded. 20. A custard.
Oranges and lemons.
Second Course: 1. A young lamb or kid. 2. Two couple of rabbits, two larded. 3. Soust pig with tongues. 4. Three ducks, one larded. 5. Three pheasants, one larded. 6. A swan pye. 7. Three brace of partridges, three larded. 8. Made dish in puff paste. 9. Bolonia sausage and anchovies, and mushrooms, and caviare, and picled oysters in a dish. 10. Six teels, three larded. 11. A gammon of Westphalia bacon. 12. Ten plovers, five larded. 13. Quince pie, or warden pie. 14. Six woodcocks, three larded. 15. A standing tart in puff paste, preserved fruits, and pippins. 16. A dish of larks. 17. Six dried neats' tongues. 18. Sturgeon. 19. Powdered geese. 20. Jellies.

At the close of the seventeenth century the sirloin was universally popular, and steaks from the choicest and most tender cuts were introduced. Immediate acceptance was apparent, for thereafter beefsteak clubs were formed by food connoisseurs and praises for beefsteak sung by poets. Beefsteak was made into puddings and steak pies, very rich and "a waste of good meat." Pepys speaks with high esteem of a "dish of steaks" purchased at an

inn. He mentions dinners of these joints: "roast mutton, powdered beef [*i.e.* salted beef], breast of veal roasted, quarter of lamb, chine of beef [*i.e.* backbone and its adjoining parts], surloyne of beef, roaste beef, breast of mutton roasted, powdered leg of pork and loin of lamb roasted, calves' heads carboned, cold roast meats, roast pork and apples, and gammon of bacon."

All menus of this period contained pies or tarts or pastries. "Pie," an abbreviated form of the word pastry, was a general term used for all foods served in layers or in cases, whether open or closed, of farinaceous paste. Jeaffreson says that all tarts are pies, but all pies are not tarts. The difference between the two is in the fashion of the paste. "Tart," is from the Latin word *torta*, the participle of *torquere*, to twist; hence any paste twisted into fancy shapes is a tart. No matter what ingredients were used with the paste, a piece of uncovered plain pastry that had not been subjected to "twisting," according to Jeaffreson, was an "open pie." A pie may be called a tart, be it meat, fruit, or custard-filled, if any part of its paste has been fancily shaped by the cook. The ingredients used to fill the early pie pan ("trap" or "coffin") were called *tortus*; they might be of flesh, fish, herbs, fresh fruit, or dried fruit. A "tortured" pie became a "tartelette," often large enough to serve a dozen persons and sometimes served swimming in pottage if made of meat or fish.

The modern custard pie originally was an apple pie covered with milk and eggs, for good cooking apples were called "costards" and he who sold them was a "costard monger." In Elizabeth's time the old term for pie, "crustard," became restricted to fruit or milk pudding pies. An old recipe for a "tart of custards" called for apple; today a custard is chiefly made of egg and milk which in olden times embedded or covered the apples. "Coddling" was another term used in apple cookery which gradually became associated with other fruits and vegetables. Hence, "codling pease" were those which readily softened in water and "hot codlings" were hot peas. [The etymology of the word *codling*, a small immature apple, is given by Webster as: "Originally a cooking apple, hard at the core, from the French *coeur de lion*, influenced by *coddle* to stew, bake." Ed.] Robert May served them in pies or codling cream (peas, cream, spices) or in fruit creams (sieved dried fruit in cream). Pear pies were highly esteemed. *The Court and Kitchen of Elizabeth Cromwell* (1664) has recipes for pear pies such as the following: "warden pears baked in the oven, with a little water and a good quantity of sugar; let your pot be covered with a piece of dough; let them not be fully baked by a quarter of an hour; when they are cold make a high coffin and put them in whole, adding to them some cloves, whole cinnamon, sugar, with some liquor they were boiled in, so bake it." "Humble pie" was eaten by persons not entitled to the best fare, since "umbles" were entrails and internal parts of a deer which were made into soups, hashes, stews and pasties. These pies were also made of tripe and pigs-fry (liver and bacon). "To eat humble pie" was to sit at lower table, or to be in disgrace. In the latter part of the seventeenth century this pasty of the lower table became quite inferior by including leftovers, recooked with potatoes or pumpkin, under a crust.[1]

Frog legs, considered delicacies, were put into pies with the flesh of eels and fruit, seasoned with nutmeg, ginger, sugar, and pepper. "Surprise pies" were not uncommon. Another of the nursery rhymes, which starts "Sing a song of sixpence," had a real foundation, for these pies, when opened, allowed living birds or frogs to escape from the crust. Toy terriers, hares, squirrels, and even dwarfs came out of these pies to "delight" the expectant guests.

Heavily larded and extremely fatty, some of the pasties of this period must have been sickening. Charles the Second's pasty of bacon is an example: boiled, minced, sugared, larded, seasoned with cinnamon, citron, the bacon was encased in dough, baked, and then drenched in lemon juice, and sugar, and served hot. Robert May's royal clientele included many devotees of marrow pies and bacon tarts. Here is a London Pie: 8 marrow bones, 18 sparrows, one pound potatoes, 2 ounces lettuce stalk, ¼ pound eringoes, 40 chestnuts, 1 peck oysters, ¼ pound citron, 3 artichokes, a dozen eggs, 2 sliced lemons, a handful of pickled barberries, ¼ ounce whole pepper, ½ ounce sliced nutmeg, ¼ ounce whole cloves, ½ ounce mace, ¼ pound currants. Liquor when baked, with white wine, butter and sugar. Huge turkey pies were eaten; one hundred birds in a pie required a carriage at one banquet, to help in its service. Fish pies were not uncommon. A herring pie was prepared as a "dainty dish." Salt herring was soaked, carefully skinned, and the flesh minced with a pound of almond paste, 2 roes, 5 dates, some grated manchet, sugar, sack, rose-water and saffron. Then this stiff pulp was put back into the skins. These were placed at the bottom of a buttered pie dish, covered with dates, gooseberries, currants, barberries and butter, and the pie was baked, then liquored with more butter, verjuice and sugar.

Mince pie, the "national pie," was served the year-round. In the seventeenth century it was served in large rectangular crusts. The mincemeat pies differed from the modern, for the filling was mostly meat with just enough dried fruits to give the flesh some flavor. The amounts of fruit included gradually increased as fruit became less expensive because of better shipping conditions and dried fruits and spices of southern Europe were made available to the richer families of England. Raisins and currants were so expensive in the seventeenth century that they were kept under lock and key, brought out on special occasions, and very carefully measured out. By the nineteenth century dried fruits had become cheaper; and the national pie began to contain fruit until now the sole meat used is usually suet. Pepys was fond of pies and pasties, especially of venison pasty, eating "five in three days," and many thereafter; he also enjoyed "turkey pie, mutton pie, mince pie, ling and herring pye, cold goose pye, umble pie, vessel of sturgeon and lamprey pie, hare pye, a very good meat," cream tarts, and once bought an eel pie at an inn, ate half of it and thriftily brought the remainder home. He doted on a dish of marrowbones.

Elizabethan England had five kinds of wheat bread: manchet—the bread of the higher aristocratic tables, 6-ounce loaves, "white and sweet"; cheat—the household bread of superior families, grey or yellow in color, made of flour from which the coarsest bran was removed; raveled cheat—bread of fairly prosperous citizens, 16-ounce loaves, made of meal from which 22 pounds of bran to the bushel had been removed; brown of first quality—made of wheat meal without any removal of bran; inferior brown—made almost entirely of bran. Inferior brown mixed with rye meal made a bread called "miscelin." Other breads of rie, barley, oats, beans, peas, corn, or mixtures of these were consumed by the poor; the very lowliest ate bread made of ground acorns. Unleavened bread, such as cracknels, "bunnes," "wafters," fritters, and pancakes were not considered wholesome by the physicians. Pepys mentions buns and toasted cakes and fritters and "listened to an account of making several sorts of bread in France . . . best place for bread in the world."

Many vegetables were eaten. Eleven years after Sir Walter Raleigh brought the first potatoes from America,

[1] *Editor's Note.*—This somewhat resembles the Cornish Pasty of today, usually made of pork and potatoes, enclosed in good pastry, baked and served cold.

sufficient were produced to supply everyone in England. Other vegetables served included tulip roots dressed with sugar, radishes, pumpkins, artichokes, fourteen kinds of colewort (including cabbage and "colie-flower"), Virginia potatoes, Peruvian potatoes, cucumbers, carrots, parsnips, turnips, Italian broccoli, beets, asparagus, onions, lettuce, spinaches, cresses for hot or cold salads, beans and peas, mushrooms and truffles. Radishes were used in meat sauces. English onions were very small, and were soon replaced by French onions. Asparagus as we grow it was unknown; it was not until the eighteenth century that the practice of deep setting of asparagus came into use. Pepys prized a glass of Danzig gherkins given to him by a captain of the fleet as "rare things." He appears to have been undeterred even when he wrote, "Mr. Newborne is dead of eating cucumbers."

Raw salads were not so popular as boiled ones among the rich. The poor ate their green-stuffs raw, as soon as spring brought relief from powdered (salted) meat. Salad materials used included: Spanish nuts, onions, leeks, chives, garlic, turnip tops, water cress, tarragon, dandelion greens, endive, lettuce, beet leaves and roots, spinach, asparagus, marigold leaves, cowslip, violets, rose petals, and many grasses believed to have therapeutic value as anti-scorbutics. The early seventeenth century cooks boiled their salads; hence any mess of greens served hot was called a "sallet." A "boyled sallet" was prepared by parboiling spinach, chopping it fine, and adding to it butter, vinegar, cinnamon, ginger, sugar, currants, and hard-cooked eggs for garnish. A grand salad for a banquet often included herbs, vegetables, fruits, apparently not well matched in flavor. Flesh and fish as chicken, veal, salmon, and lobster were often served in green salads. John Evelyn's *Acetaria, A Discourse of Sallets* (1699), distinguished between vegetables used for raw salads and boiled salads, listing 80 "salleting materials." He advocated raw salads with a sauce of mustard, oil, vinegar, and hard-cooked yolks of eggs. Mayonnaise was devised in the eighteenth century. Eggs were eaten in many ways, and even then were an Easter specialty.

Desserts during this period were usually of two kinds, cheese and creams. Called "issue at table" or "voiders," the last course became dessert in the seventeenth century. Hippocras, a white or red wine with spices and honey, was always served with wafers (baked between irons, probably a forerunner of today's waffle). Cheese was served with fruit or fruit tarts made into small fancy cheese-cakes. Pepys appears to have relished "gingerbread made in cakes." Iced drinks and creams were just being introduced into England at this time, although the Italians and French had used saltpeter dissolved in water for cooling food and drink. Charles the Second had the honor of having had the first ice house constructed. Pepys reports having partaken of some of the King's table meat and a "most brave drink cooled in ice." Water ices, thereafter, were sold at confectioners' shops.

The fruits of the Elizabethan table were mostly dried, and obtained from southern Europe. Pepys, himself, received from Captain Country of the Fleet a gift of "some grapes and millons from my Lord at Lisbon, the first I ever saw, but grapes are rare things." Oranges and lemons were used as medicinals, and in sauces for meat. Pepys records having "to take up a box of china oranges and two little barrels of scallops at my house which Captain Cuttance sent to me for my Lord." His introduction to orange juice came when visiting his cousin; it was something "which I never had before, I drank a glass of a pint I believe, at one draught, of the juice of oranges, of whose peel they make comfits; and here they drink the juice as wine, with sugar, and it is a very fine drink; but it being new, I was doubtful whether it might not do me hurt." Later orange trees were grown in the gardens of the rich, as were walnut, peach, apricot, and fig trees, hot-house grapes and melons. Pepys first saw oranges growing in Lord Brooke's garden. He says "The King and Queen eat only the Catharine payre" (a small red fruit). The common folk had gooseberries, currants, strawberries, apples, cherries, outdoor grapes, plums, pears. Oranges were sold by "orange girls" at theaters during the performance of plays. Pepys purchased them when he went to the plays: "lemons, 6 d. per piece and oranges 3 d." Fruit was dried and sugared by the housewives, for winter use. The favorite preserves were made of quinces; marmalades were also made of warden pears, apples, cherries, plums, strawberries.

In planning menus, the Elizabethan English placed the heavier and cheaper foods before the lighter and more choice. Jeaffreson submits two menus:

A menu in 1600 served to the lesser aristocracy consisted of:

First Course: 1. Pottage or stewed broth. 2. Boyled or stewed meat. 3. Chickens and bacon. 4. Powdered beef. 5. Pies. 6. Goose. 7. Pigge. 8. Rosted beef. 9. Rosted veal. 10. Custard.

Second Course: 1. Rosted lamb. 2. Rosted capons. 3. Rosted conies. 4. Chickens. 5. Peahennes. 6. Baked venison. 7. Tarts.

A Christmas meal in 1684 consisted of:

First Course: 1. A pottage with a hen. 2. A Chatham pudding. 3. A fricacie of chickens. 4. A leg of mutton with a sallet. Garnish your dishes with barberries.

Second Course: 1. A chine of mutton. 2. A chine of veal. 3. A lark-pye. 4. A couple of pullets, one larded and garnished with orange-slices.

Third Course: 1. A dish of woodcocks. 2. A couple of rabbits. 3. A dish of asparagus. 4. A Westphalia gammon.

Last Course: 1. Two orange-tarts, one with herbs. 2. Bacon tart. 3. Apple tart. 4. A dish of pippins. 5. A dish of pearmains.

Giles Rose's summer banquet in his *Perfect School of Instructions for Officers of the Mouth* (1682) follows:

At Entry: 1. Good bread. 2. Good wine. 3. Apricots. 4. Damask plums. 5. Little pyes of venison, hot. 6. Talmouses made of the brain of a capon, minced and baked like cheese-cakes.

Pottages: 1. Boiled and larded venison. 2. Chickens in stove. 3. Wood-pidgeons with sprouts, and young coleworts.

First Service: 1. Partridges with small salt. 2. Hot venison pye. 3. Young rabbits, also with small salt.

Second Service: Herns with a bastard sauce. 2. Levrets. 3. A pye of quails.

Third Service: 1. Soust or pickled meat, with a cordial sauce. 2. Chickens in sharp sauce. 3. A pye of widgeons.

Fourth Service: 1. Stares with sauce of new sweet wine. 2. Goose in white sauce. 3. Pullets mortified like a pheasant.

Fifth Service: Pidgeons with sweet sauce. 2. Venison. 3. Cold venison pye.

Sixth Service: 1. Pig. 2. Pears. 3. Peaches. 4. Sturgeon.

At Issue of Table: 1. Three things baked upon a dish. 2. Jelly. 3. Apples.

The above menu is a bit more delicate than those served at earlier periods.

Pepys enjoyed entertaining at dinner; here are a few menus of which he was especially proud: for twelve he had "a very good dinner, *viz.* a dish of marrowbones; a leg of mutton, a loin of veal; a dish of fowl, three pullets and two dozen larks all in a dish; a great tart, a neat's tongue, a dish of anchovies; a dish of prawns and cheese." On another occasion he had "a good chine of beef, which with three barrels of oysters and three pullets, and plenty of wine, was our dinner." For Sir William Penn's wedding anniversary, "We had beside a good chine of beef and other good cheer, eighteen mince pies in a dish, the number of

years he had been married." On another occasion four of Pepys' guests had a "pretty dinner; *viz.* a brace of stewed carps, six roasted chickens, and a jowle of salmon, hot, for first course; a tanzy and two neats' tongues and cheese the second." (A tanzy was any pudding containing tanzy, an herb.) Another dinner for four men consisted of "a shoulder of venison roasted, another baked, and the umbles baked in a pie." For a party of two men and four women, "I had for them, after oysters, at first course a hash of rabbits, a lamb, and a rare chine of beefe. Next a great dish of roasted fowle, cost me about 30 s., and a tarte and then fruit and cheese." Later, at supper the same guests "had a good sack posset [milk curdled with wine] and cold meats." On another occasion Pepys and his wife had "a wild goose roasted, a barrel of oysters, and a cold chine of beef." On a special occasion, having nine guests, "my dinner was great and most neatly dressed by my owne only maide. We had a fricassee of rabbits and chickens, a leg of mutton boiled, three carps in a dish, a great dish of a side of lambe, a dish of roasted pigeons, a dish of four lobsters, three tarts, a lamprey pye (a most rare pye), a dish of anchovies, and good wine of several sorts." During the summer he had "a venison pasty very well baked, and a good dish of roasted chickens, pease, lobsters, strawberries" for four guests.

In Charles the Second's London, every important tavern had a daily menu; a visitor could select his own cut from any of twenty joints turning on spits before the kitchen fires. Pepys dined out often and his diary reports such gustatory adventures as these: "To the Bell with a special good dinner, a leg of veal and bacon, two capons and sausage and fritters, with abundance of wine," or "I bought a bit of salmon for 8 d. and went to Sun Tavern and eat it"; during a journey "We went to a place we had taken to sup in, where a sallet and two or three bones of mutton were provided for a matter of ten of us which was very strange." Another day he goes "to the Black Spread Eagle in Bride Lane and there had a choppe of veale and some bread, cheese and beer, cost me a shilling to my dinner." At a French House for dinner he was given "a mess of potage first, then a couple of pigeons, and then a piece of boeuf-à-la-mode, all for six shillings." The coffee-houses of Pepys' period, originally built for the service of coffee, became meeting houses as well as inns. At this time dishes prepared in the home could be sent out to a public oven for baking; bakeshops and confectioneries, milk-houses, whey-houses, cake-houses, all catered their specialties at this period. Pepys speaks of "a joint of meat thither from the Cook's;" also "Sir W. Penn dined at my house, and had two mince pies sent thither by our order from the messenger Slater that had dressed some victuals for us." And, not without humor is the day, when, bringing three men home to dinner, he "was vexed that it being washing day we had no meat dressed, but sent to the Cooke's and my people had so little witt to send in our meat from abroad in that Cooke's dishes, which were marked with the name of the Cooke upon them, by which, if they observed anything, they might know it was not my owne dinner."

The food purchaser went early to market to buy fish, meat, and other perishables, but women who wished to be thrifty shopped later in the day for bargains in non-perishables. Pepys often purchased the meat or fish from open stalls or street peddlers, sugar from an inn or confectioner's shop; in preparation for one of his special dinners at home, he had his "wife up at 5 o'clock to market to buy fowles and other things and chine of beef by 6 o'clock." The condition of meat before it was cooked is well depicted by this diarist: "thence to my Lord about business, and being in talk, in comes one with half a buck from Hinchinbroke, and it smelling a little strong my Lord did give it me (though it was as good as any could be.)" In the month of June "though they buy good meate, yet can never have it before it stinks, which I am ashamed of." At Sir William Penn's he was given a venison pasty "that stunk like a devil." A great marvel to him was a story he heard from merchants about food preservation in the country about Königsberg where fishing was done with nets. Fowl, it appears, was killed in December and put under a sledge of ice to remain frozen until April eating; "young bears are there, their flesh sold in market as ordinarily as beef is here and is excellent sweet meat."

Wine shops, ale-houses, and taverns sold beverages which were enjoyed by men and women. Pepys' resolutions to cease drinking were many. He tried to convince himself that he had kept his resolutions when he drank some hippocras "which do not break my vowe, it being to the best of my judgment only a mixed compound drink, and not any wine!" He liked all drinks at all hours of the day, and mentions them almost daily: wines of all sorts, ale, beer, and sack posset curdled; buttered ale (sugar, cinnamon, butter, and beer with hops); "mum" (ale brewed with wheat at Brunswick—as soon as the beer began to work, fir and birch taps, marjoram and thyme were added); Lambeth ale; "lamb's wool" (ale mixed with sugar, nutmeg, and pulp of roasted apples); "Bristol milk" (milk rum punch). On one occasion he and three men drank three quarts of wine and ate 200 walnuts. Taverns sold whets for drinking. Of these, Pepys seems to have preferred anchovies and olives, and botargo, a kind of salt sausage made of hard roe of sea mullet pickled, with oil and vinegar, also dried neats' tongues, bloat herrings, and bacon.

Pepys suffered for years with kidney stones and he often describes the rich dishes he ate as very "binding." His physician "tells me again I must eat in a morning some loosening gruel, and at night roasted apples, that I must drink now and then ale with my wine, and eat bread and butter and honey and rye bread if I can endure it, it being loosening."

When the great fire destroyed most of London, Pepys buried his silver, his papers and his wine in the garden, along with his "Parmesan cheese." He tells of seeing rumps of beef burned on the streets of London: "Hence we went homewards, it being ten at night. But the common joy that was everywhere to be seen! The number of bonfires, there being 14 between St. Dunstan's and Temple Bar, and at Strand Bridge I could at one view tell 31 fires. In King Street 7 or 8; and all along burning and roasting, and drinking for rumps. There being rumps tied upon sticks and carried up and down. The butchers at the May Pole in the Strand rang a peal with their knives when they were going to sacrifice their rump. On Ludgate Hill there was one turning of the spit that had a rump tied upon it, and another basting of it. Indeed it was past imagination both the greatness and the suddenness of it." It was a very ordinary thing to see children make a fire in the streets and burn rumps over it.

They made a game of cutting a cake; Pepys mentions this several times, for example, "The mark for the Queen was cut and so there were two queens, my wife and Mrs. Ward, and the King being lost they chose the Doctor to be King, so we made him send for some wine," and again, "after cards to choose King and Queen, and a good cake there was, but no marks found; but I privately found the clove, the mark of the knave, and privately put it into Captain Cocke's piece which made some mirth."

Even burials were events where food loomed importantly. In an account of his brother's death, Pepys says the household invited 150 people to come to the burial at

one to two o'clock. They came at four to five o'clock, and their "service was six biscuits apiece and what they pleased of burnt claret." The men were in one room; the women in another. After the refreshments the guests proceeded to the burial place.

Pepys was amused at "William Bowyer who dined with us, but strange to see how he could not endure onyons in sauce to lamb, but was overcome with the sight of it, and so was forced to make his dinner of an egg or two."

The pleasures of dining have never been so eulogistically sung as by Brillat-Savarin (1755–1826) more than a century after Pepys. His classical elegy in *The Physiology of Taste* follows very appropriately as an ending to any discourse on food and dining:

> You, the first parents of the human race, who ruined yourselves for an apple, what would you have done for a turkey done with truffles? But in Eden there were neither cooks nor confectioners. —How I pity you!
>
> Ye mighty kings who brought haughty Troy to ruins, your prowess will be handed down from age to age, but your table was scanty. With nothing but a joint of beef or a chine of pork, you knew not the charms of a matelote, or the delights of a chicken fricassee.—How I pity you!
>
> You, Aspasia, Chloe, and others whose forms the Grecian chisel has immortalized to the despair of modern belles, never did your charming mouths inhale the sweetness of a scented meringue; your ideas scarcely arose above gingerbread.—How I pity you!
>
> You, gentle priestesses of Vesta, burdened at once with so many honors and with the dread of such dreadful punishments, if you had tasted those delightful sirups, preserved fruits, and ice creams of various flavor, the marvels of our age!—How I pity you!
>
> You, invincible Paladins, renowned by the minstrels, never—after vanquishing giants, delivering fair ladies, or exterminating armies—never did a black-eyed captive offer you the foaming champagne or a goblet of Madeira; you had to content yourselves with ale and some poor, herb-flavored wine.—How I pity you!
>
> You, abbots and bishops, who dispensed the favors of heaven, and you, the dreaded Templars, who armed yourselves for the extermination of the Saracens, you knew nothing of the sweet, restoring influence of our modern chocolate, nor of the thought-inspiring bean of Arabia.—How I pity you!
>
> You, too, gastronomes of the present day, who dream of some new dish to flatter your palled appetite, even you I pity, because you cannot enjoy the discoveries which science has in store for the year 1900, such as contributions drawn from the mineral kingdom; and liqueurs produced by the pressure of a hundred atmospheres; nor will you ever see the importations to be brought by voyagers yet unborn from distant lands still unknown or unexplored!

One cannot help wondering what people of the twenty-third century will think of our modern hot dogs, carbonated beverages, our chewing gum, and so on.

Benjamin Franklin and Food

In his early youth Franklin was a vegetarian, not so much because he did not believe in the values of meat, as because it saved him money. Supper, when he was a poor struggling printer in London, consisted of "only half an anchovy each on a very little strip of bread, and half a pint of ale between us."

Necessity did not force Franklin to remain a vegetarian, however, and in later more successful years he became interested, along with his electrical experiments, in the problem of making meat more tender. He expressed the belief that fowl killed by electricity was uncommonly tender. He wrote of his experiments on the physiological action of the electric discharge, "It has been observed that lightning, by rarefying and reducing into vapor the moisture contained in solid wood, in an oak, for instance, has forcibly separated its fibres and broken it into small splinters; that, by penetrating intimately the hardest metals, as iron, it has separated the parts in an instant, so as to convert a perfect solid into a state of fluidity; it is not then improbable, that the same subtile matter, passing into the bodies of animals with rapidity, should possess sufficient force to produce an effect nearly similar. . . .The flesh of animals, freshly killed in the usual manner is firm, hard, and not in a very eatable state, because the particles adhere too forcibly to each other. At a certain period, the cohesion is weakened, and in its progress towards putrefaction, which tends to produce a total separation, the flesh becomes what we call tender, or is in that state most proper to be used as our food. . . . It has frequently been remarked that animals killed by lightning putrefy immediately. This cannot be invariably the case, since a quantity of lightning sufficient to kill may not be sufficient to tear and divide the fibres and particles of flesh and to reduce them to that tender state which is the prelude to putrefaction."

Although he preached moderation and sensible indulgence in living, his home in Passy, France, was a handsome establishment where dining for his family and nine servants was more than adequate. The menu for breakfast (served at eight on week days and at nine or ten on Sundays) included bread and butter, honey, and coffee or chocolate, or Franklin's tea. Dinner included a joint of beef or veal or mutton, followed by a course of fowl or game and two varieties of vegetables, pastry, two sweets, hors d'oeuvre, butter, pickles, radishes and relishes. Desserts consisted of two fruits in winter, four in summer, biscuits, bonbons, two compotes, cheese, and ices twice a week in summer and once in winter.

As for drink, Benjamin Franklin honestly admitted that two glasses of champagne put him in a good humor, and that he was most fond of Madeira wine. In his later years he had a hearty appetite for both food and drink, but he did not indulge to excess. In observing Franklin's ample diet and his taste for fine foods, one might label him as lavish, especially after his preachings on moderation and thrift. It is true that his household at Passy did not entirely live up to his theories, but in comparison to other ambassadors in Paris, Franklin lived very plainly.—*The National Franklin Committee, Philadelphia.*

THE ARMY MEDICAL DEPARTMENT AND THE DIETITIAN[1]

LT. COL. EDGAR M. DUNSTAN, M.C., A.U.S.
Lawson General Hospital, Atlanta, Georgia

THE vitally urgent matter of recruiting dietitians for the armed forces has recently been brought to the attention of the public. Many state dietetic organizations have devoted their yearly conferences largely to this matter and since the dietitians are now a part of the Medical Department of the Army of the United States, it is well for them and the public in general to know more about the background of this Department, the scope of the dietitian's activities within it, as well as some of the advantages which accrue to the Army dietitian.

As a hospital administrator in civilian life, I have always been keenly interested in the operations of the dietetic department of the hospital and have made it a point to keep up with the major developments in this important field. An idea of the importance of this department in the routine operation of the civilian hospital can be glimpsed by the realization that under the supervision of the chief dietitian approximately twenty-five per cent of the expenditures of the institution are made. The three cardinal factors in the internal operation of a hospital are professional service, food service, and sanitation. Since the average patient is usually not in a position to evaluate fully the professional service that he receives and frequently is unaware of any but the most obvious phases of the sanitary measures required for his well-being, he often judges the hospital largely by the food that it serves.

As a member of the staff of one of the outstanding Army general hospitals of this country, I have had the opportunity for the past two and one-half years of continuing to observe the important role that proper diet plays in the health and welfare of our soldiers. Lawson General Hospital, 12 miles north of Atlanta, is a cantonment-type hospital composed of some 246 buildings, 64 of which are wards for patients, with a normal bed capacity of 2000. Under the supervision of the Dietetic Division are 5 messes —2 for enlisted patients, one for officer patients, one for enlisted duty personnel, feeding approximately 1000 persons, and one for the Enlisted Men's Technician School which feeds between 1500 and 2000 students and other personnel. Ward food service is given to bed patients. The staff of the Division is composed of the Director, 2 Mess Officers, the Head Dietitian, 7 Staff Dietitians, 37 enlisted men, and the required number of civilian kitchen personnel. The staff also operates one of the 4 Schools for Dietitians (the other 3 are at Walter Reed Hospital, Fitzsimons General Hospital, Denver, and Brooke General Hospital, San Antonio).

ORIGIN OF THE MEDICAL DEPARTMENT

The Army Medical Department has a rich historical background and, since the dietitians are officially a part of this Department, a thumbnail account of some of its achievements may be interesting. The Department is composed of the following integral major subdivisions: The Medical Corps, organized as such in 1818; the Nurse Corps, organized officially in 1899; the Dental Corps, in 1911; the Veterinary Corps, in 1916; the Sanitary Corps, in 1917; the Medical Administrative Corps, in 1920; the Hospital Dietitians and the Physical Therapy Aides, who became a part of the Army as a result of an Act of Congress, December 1942; and the Pharmacy Corps, organized in July 1943.

The Army Medical Department actually had its origin at the very beginning of our national history when Congress, upon the recommendation of George Washington, created the first military-medical service known in America. At that time the Department functioned as a decentralized system, brought about by the urgent necessities of war. At first, large homes and other available buildings were utilized for hospital purposes, and medical men frequently were forced either to fight or minister to the sick and wounded according to the prevailing tides of battle. It is interesting to note that as early as 1776 the Army first made a request for women to take care of the wounded, and wives, mothers, and sisters of the soldiers were used, as they were available, on the basis of one for every 10 patients.

ADVANCES PREVIOUS TO THE FIRST WORLD WAR

As the above dates indicate, the major advancements of the Medical Department were effected largely during times of national emergency. The expansions and reductions in the size of the Department parallel closely those of the Army as a whole and are subject to the influences which determine the actions of a great democracy of peace-loving people, who inherently object to a large standing army, preferring rather to risk their fate on a small well-trained nucleus of Regular Army troops which can be expanded into great citizen armies as demanded by the recurring emergencies. The experiences of the Revolutionary War and those of the War of 1812 soon demonstrated that the care of sick and diseased soldiers was a larger burden than the care of soldiers injured in battle. Contagious diseases and infections from wounds caused more deaths than enemy fire. Thus, very early in the history of our country it was demonstrated that the primary mission of the medical service must be to "conserve the fighting strength of the military force." Accordingly, in 1818 an Act of Congress served to reorganize the Medical Department and provide for the first Surgeon General as head of the medical staff; in 1847 another Act of Congress provided for military rank for medical officers.

From the period of its organization in 1818 until the Civil War, the Army Medical Department laid the foundation for the remarkable achievements which were to follow. Organization was perfected, a broad course of action outlined, and the Department embarked on the great enterprise which has made it an outstanding contributor to both the military and civilian health of the nation, particularly in the field of preventive medicine and sanitation.

During the Civil War, 1,057,423 sick and wounded were treated. There were 13,000 medical officers in the Union Army and 9000 in the Confederate Army. In this war, as in the Revolutionary War, women played a part to which sufficient credit has not yet been given. Attention is invited to the excellent article entitled, "Lincoln's Daughters of Mercy," condensed from a book by Marjorie Barstow Greenbie, which appeared in the August 1943 *Reader's Digest*. Therein is related the fascinating story of a group of determined women who were instrumental in teaching the world the importance of battlefield nursing care. Inspired by Florence Nightingale's heroic example in the Crimea 6 years before, these women organized themselves into the Women's Central Association for Relief, with affiliations in many of the large cities of the nation. Dorothea Dix won from President Lincoln's office an order to provide 100 trained nurses for the Army. Further, through the influence of these women, a Sanitary Commission was set up, one of the early triumphs of which was to design the famous "pavilion hospitals," operated largely by the women.

In the period between the Civil War and the Spanish-

[1] Read before the annual meeting of the Georgia Dietetic Association, Atlanta, November 27, 1943.

American War, consolidation of the gains which had been attained was continued as shown by: the institution of teaching first aid to line officers and company litter bearers; the 1885 order by the Surgeon General for Medical Department officers to submit monthly sanitary reports; the establishment in 1893 of the Army Medical School at Washington, D. C., for the training of large numbers of Medical Department personnel; and the pioneering work in bacteriology of Surgeon General George M. Sternberg, which led to the establishment of laboratories in all station hospitals during his administration.

Casualties of the Spanish-American War were relatively few, a total of 284 deaths as a result of injuries among a total of 235,631 engaged in the war. The picture with reference to diseases, however, was entirely different. Out of every 100,000 soldiers engaged in the war 14,000 were admitted to sick report with typhoid fever, and a total of 3500 died as a result of diseases, the great majority from typhoid fever. The sudden emergency and the inability of the Medical Department to secure sufficient enlisted men to care for this large number of sick individuals resulted in approval of the use of the facilities and personnel of the American Red Cross, particularly Red Cross nurses, and shortly thereafter in the organization of the Army Nurse Corps which at that time reached a total enrollment of 1563 nurses.

As a result of the experience with typhoid and yellow fever, the Army Medical Department concentrated intensive efforts on the study of these diseases and methods for their control. The fascinating story of the work of Major Walter Reed, Colonel William C. Gorgas, and their associates, in fighting the yellow fever mosquito in Cuba is well known.

Other noteworthy contributions of the Army Medical Department personnel in this period included: progress in the control of hookworm infection, cholera, and smallpox; the intensive investigation of beriberi in the Philippine Islands by Colonel E. B. Vedder which disclosed that the eating of unpolished rice would prevent this disease and led to further scientific work on vitamins; and the initiation of the liquid chlorine method of water purification in 1910 by Major C. R. Darnall, a method which has now been adopted throughout the world and probably has saved and will save more lives than any other single medical achievement. In addition, the Department cooperated with other government agencies in the practical eradication of bubonic plague from America; conducted studies in pneumonia prevention, particularly in the Civilian Conservation Corps, with favorable results; and secured a marked lowering of the venereal disease rate in the Army.

ADVANCES SINCE 1917

The first World War demonstrated the soundness of the foundations upon which the Army Medical Department had been built. At the time of the Armistice the Army consisted of approximately 3,500,000 men and the Medical Department over 350,000 officers and men. During that war the Medical Department treated approximately 4,000,000 sick and wounded in the hospitals and approximately 7,000,000 men were given examinations. At the end of the war there were still approximately 265,000 sick and wounded remaining in hospitals in France and the United States who later were turned over to the United States Public Health Service and still later to the Veterans Bureau upon its organization in 1921. Outstanding contributions of the Army Medical Department during the war were: work in surgery and orthopedics which reduced the incidence of deaths from wounds in the hospital from 10.48 per thousand in the Civil War to 4.5 per thousand in the first World War; and the decrease in the incidence of typhoid fever to 37 out of every 100,000, as compared to an incidence of 14,000 out of every 100,000 in the Spanish-American War.

In the first World War the Sanitary Corps was organized to furnish the necessary technical assistance to Medical Department officers. A Division of Food and Nutrition in the Sanitary Corps was authorized with Lieutenant Colonel John R. Murlin, professor of physiology, University of Rochester, in charge. This division reached a total of 30 officers whose main duties were to improve cooking, prevent waste, secure better balanced diets, and increase the nutritional value of food served in the Army.

Dietitians first came to the attention of the Army in the first World War during which time 84 served overseas and 272 in hospitals and cantonments in this country. They served on a civilian status and their work was excellent. As a result of this experience, the Army decided to establish the Walter Reed School for Dietitians, in order to obtain a constant supply of qualified personnel in this vital field. To date over 200 students have graduated from this school.

The period between the two world wars was characterized by the usual marked reduction of personnel strength in the Army Medical Department, but diligent efforts were made to continue to maintain the basic organization, special emphasis being given to the education of the large number of Reserve Officers who would be called into the service for the inevitable next world catastrophe. The National Defense Act of 1916 was again amended in 1920, the standard of 7 medical officers per thousand strength of the Army was reduced to 6.5 per thousand, and the Medical Administrative Corps was organized to furnish the other .5 per thousand personnel which would be needed.

Some of the main advancements so far in the present war have been: the reduction of deaths as a result of wounds in the hospitals from the average of 4.5 per thousand in the first World War to 3.5 per thousand with some theaters reporting as low as 1.5 per thousand, an attainment attributed to the widespread use of plasma, the rapid evacuation of the wounded to points where medical facilities are available, with as little disturbance of the patient as possible, and the use of sulfonamides; the outstanding accomplishments of plastic surgery; the prophylactic use of sulfadiazine which has greatly contributed to the conservation of manpower by simplifying the extensive quarantine procedures formerly observed; the extensive educational program designed to place each man in the position for which he is best qualified and giving him the training he needs entirely on the basis of aptitude; the management of the psychoneurotics; and the widespread use of penicillin.

In addition, the nutrition program which is being carried out both in the Army and in war industries also bids fair to be a major factor in this war. In this educational program nutrition officers and dietitians are serving effectively. The Food and Nutrition Division of the Sanitary Corps, at present composed of 175 officers, has again been set up. One of these nutrition officers is attached to the menu planning board of the Quartermaster Corps, which also includes a dietitian, Mary I. Barber. It was the urgent need for more qualified personnel who could be used wherever the need was greatest that led to the commissioning of Hospital Dietitians by authority of an Act of Congress in December 1942.

SCHOOLS FOR DIETITIANS

The 4 Army schools for dietitians at present are set up to train 108 student dietitians a year; the remainder must

come in either as apprentice dietitians or as second lieutenants in the Army, according to their training and experience. In analyzing the reasons for delay in volunteering for this service, it is seen that parent and husband objections appear to be the main reasons why more do not enter the Army. The question is: What can be done to overcome these objections? The first answer is that parents and husbands will have to be convinced of the great need for dietitians in the armed forces. It has been amply demonstrated throughout the history of our democracy that the average man or woman measures up to whatever is required, once the need is known and understood. The ones who are in position to know have told us categorically that more dietitians must be secured. Common sense, therefore, would indicate that it should be done as soon as possible. I wholeheartedly agree with Thomas Jefferson who said, "I have great confidence in the common sense of mankind in general."

The question is sometimes raised by parents and husbands concerning the type of living conditions to which their daughters and wives might be exposed if they were to enlist today. The best way to answer this is to refer them to some of the dietitians now in service. The dietitian has the same type of living conditions as the nurse in the hospital. The food, as they can tell you better than any one else, is of the best quality available. They have the same opportunity for social relationships as do the other officers and nurses in the command. They become an integral part of a great team with glorious traditions and a proud record of accomplishment. They are officers in the Army of the United States and, as such, have all of the rights, privileges, and obligations that come with acceptance of this high responsibility.

As has been mentioned before, one of the few good by-products of war has been the educational program in health and nutrition which has been carried out in the armed forces and in industry. The so-called underprivileged third of the nation has thus caught a glimpse of horizons of health and well-being which formerly they did not dream possible. As a result, hospitals will undoubtedly increase markedly after the war. Dietitians in increasing numbers will be needed to take care of this great increase in hospital facilities. A position is almost assured for anyone who wishes to stay in the field. But even if she wishes to retire from professional life and rear a family, what better training could a young woman receive than that of a dietitian? The experience and knowledge obtained in nutrition and in dietetics, both with the normal and the sick individual, will be invaluable to her in any walk of life.

In this brief summary of the history of the Medical Department of the United States Army, I have tried to show to some degree the extent of the work carried on in such an excellent manner by this Department. It has a glorious background and its part in saving lives in the present war will undoubtedly go down in history among the miracles of modern science. The dietitian has a definite role to play in this Department, as well as an opportunity to give significant service to her country in this time of national emergency.

An Army Hospital Dietitian in New Guinea

I joined a unit of casual officers—45 dietitians and 12 physiotherapists. We were in California just one month and spent busy days—drilling, calisthenics, attending training classes, films, going over the obstacle course. We also went on 5 and 10-mile hikes.

Then we were finally on our way down to the boat, complete with gas mask, musette bag, steel helmet, utility bag (the shoulder strap hand bag), all this over our uniform and trench coat. By the time we reached the dock and heard the band playing we really needed the moral uplift of the music to get us aboard ship. We were issued two olive drab uniforms—very nice ones—our seersucker uniforms, shoes, raincoats, overcoats, rubbers, a heather sweater, caps to match our uniforms, shirts, utility bags, and an olive drab nurse's cape. We sent all of our blue issue home, and our white uniforms, caps, and shoes. We were also issued bedding rolls, shelter halves, gas masks, and general field equipment.

On shipboard all was peaceful, lovely, wonderful—becoming acquainted with our shipmates, reading, sunning, playing bridge, shuffleboard, singing in the lounge, or just sitting by the hour watching the beautiful blue Pacific slip silently by. We had good four-course meals and steward service. There were 6 to a stateroom—crowded—but we spent most of our time on deck anyhow. All this peace and calm was interrupted occasionally by fire-alarms and air-raid and submarine drills.

We docked a short while before Christmas and awaited orders for 3 weeks. We lived in tents, did K.P., knitted, read, wrote letters and were generally fascinated by the experience of being foreigners. When our orders came through, some of the girls flew north, some went south, but the majority, including myself, were ordered north on a hospital ship. We stored all our clothing and were issued slacks, safari jackets, and field boots. I arrived in New Guinea, minus my footlocker which I still do not have, just a little more than 2 months ago. I came directly to my hospital unit, a 250-bed hospital. They did not know that a dietitian was coming, had never had one, but welcomed me with open arms.

At first I wondered what a dietitian would or could do in New Guinea, but after the orientation period I soon found plenty of work. I have 80 to 100 trays on the ward. The trays are set up in the kitchens and taken to the wards by the orderlies. About half of these are special diets—soft, fat-free, liquid, high-caloric, meat-free—no diabetics as yet. We have no scales, but we measure the food. After about 4 weeks in the main kitchen, I talked them into building a diet kitchen in one corner of the mess hall and that was a great improvement. Our equipment is all field equipment—the Army field ranges, no mixers, 2 ice boxes, one a portable unit and one a permanent unit. I was really amazed at the food we had—fresh meat almost daily; fresh eggs; vegetables such as cabbage, potatoes, tomatoes, beets, and carrots; fruits—oranges, apples, pineapple, pears, about twice a week. We use some dehydrated potatoes, milk, onions, and cabbage. Our canned goods supply is good, too—all the fruit juice we can use, canned chicken and turkey, canned fruits—not very many canned vegetables, however. The mess halls do not have cement floors—just gravel—we use sheets for tablecloths in the officers' mess. My mess officer and mess sergeant are wonderful to work with. They are open to suggestions and are very cooperative about most things, which made it easy for me to get started. Our rations are issued daily, so we write the menus one day in advance.

We live in grass huts which have floors and are very cool and comfortable—12 girls to a hut. Our recreation hut is very nice, wicker furniture, gay pillows, red knick-knack shelves and tables, a floor smooth enough for dancing, a small bar where we can make sandwiches and coffee, a small gas refrigerator, and a sewing machine. All the hospital wards are grass huts with no floors. The walks are graveled between the wards, quarters, and mess hall. The heat is not too bad but we have to give all our shoes a good saddle soaping once a week or they are covered with green mold.

Social life is strenuous, that is, the availability of escorts is limitless. We have movies three nights a week in the mess hall and a weekly dance in the officers' club. People are very friendly and there is much less formality here than in the States. Mail service is quite good.—*Second Lt. Maude Elaine Carson, H.D., A.U.S., writing from Somewhere in New Guinea, April 1, 1944.*

HOSPITAL FOOD SERVICE IN THEATERS OF OPERATION DURING THE PRESENT WAR[1]

COL. PAUL E. HOWE
Sanitary Corps, U. S. A.

HOSPITAL food service has received formal attention by the Surgeon General in this war. Through the foresight of Colonel Charles B. Spruit, M.C., an overseas hospital ration was developed by the Nutrition Division that would assure the presence of extra quantities of foods and special foods for light, liquid, soft and special diets in hospitals. This plan applied particularly to the nonperishable or Type B ration, commonly called the Expeditionary Force Ration. This ration is supplied in the early phases of an operation. It is intended that fresh foods will be supplied as soon as practicable. In the military operations of the war this ration has at times been used exclusively for long periods. It was very fortunate, therefore, that special provisions were made for hospitals.

The ration for hospitals was based on (a) an estimate of the number of patients requiring extra or special food, (b) a series of ten-day menus for the regular and each type of special diet, and (c) the foods that were considered suitable for the Expeditionary Force Rations. Fifteen per cent of the total number of hospital patients were assumed to require extra or special food. While this proportion has been found to be satisfactory in most cases, it is assumed that under combat conditions in different parts of the world a different proportion of the various types of diets may be required and that suitable modification of the ration with regard to quantity of food will be initiated by the surgeon to meet the new conditions. The menus were prepared under the immediate supervision of Captain Claude S. Pritchett.[2] They were advisory only, since the preparation of the menus for patients is usually in the competent hands of the dietitian. Where dietitians are not available, a nurse with some training in dietetics often assumes this responsibility. The Expeditionary Force Ration is changed from time to time. The basic overseas menus have not been changed, however, although adjustments in food and qualities of food have been made as a result of the experience gained from the early use of the ration.

Practices in the method of drawing rations varied from theater to theater. In the European Theater of Operation, a ration has been developed, based, however, on the Expeditionary Force Ration. In this theater, hospitals were using excessive quantities of fruit juice when water was sufficient in many cases. After suitable indoctrination the quantities of fruit juice provided were found to be satisfactory.

In the North African Theater of Operation the quantities of various foods required differed so from the ration that the food for hospital patients was provided on the basis of the regular Expeditionary Force Ration plus a 35-cent cash credit for the purchase of extra foods through the quartermaster. With the exception of fresh fruits or vegetables the purchases were limited largely to items in the Expeditionary Force Ration although the hospital authorities could request any food, chiefly canned or processed, they desired. These extra quantities of available foods, however, were among those contemplated for use in the Overseas Hospital Ration until the requirements of the hospitals could be established and supplies to meet these requirements provided.

A somewhat similar arrangement existed in the Persian Gulf Command. In this case, however, the hospital received the full credit of a ration and a half against which it drew the food required by the hospital. In this theater for the time being there was a wider variety of foods available that had been acquired from certain civilian contractors who had previously operated in the area.

In India—the China-Burma-India Theater—the troops in some areas lived on the Type A ration, or the usual selection of fresh foods plus the staple foods. The allowance for hospitals was a ration and a half or the ration plus a money allowance equal to half the value of the ration. In the Assam and Burma area, where fresh foods are not so readily available, the hospitals received the Overseas Hospital Ration and in all cases were given preferential treatment when specific items were short. One general hospital, because of its special requirements, had established its own ration based, again, on the food available in the Expeditionary Force Ration. In China, in addition to the fresh foods available, certain foods produced in America were transported over the "Hump" for the use of the hospital.

The problems encountered by hospitals and the dietitians vary, both within and between theaters. One of the big problems after the food is well prepared, is that of seeing that the food reaches the patient while it is still hot. While hot attractive food in a hospital is axiomatic, the accomplishment is often fraught with many difficulties. In the early stages of even permanent hospital installations, travel between the kitchen and the wards may be over unpaved rough walks that preclude the use of carts. In such cases the Drinkwater food chests must be carried by hand. The walks, even in some permanent hospitals, are not covered, which presents the problem of protecting food against the cold and driving rains. Where there are many special dishes or diets for ward patients the receptacles in the Drinkwater chests are not sufficient and this presents both the problem of suitable receptacles and the problem of keeping the food hot until served. The difficulties were solved in many ways.

Hospitals in the field have all the difficulties of the permanent ones, and the situation is often complicated by the fact that there may be no walks at all between kitchen and wards. Problems are intensified by the mud, rain, excessive heat (in relation to service of cold food cold), limited refrigeration, etc. In addition, mess kits may be used to serve food to the patients.

There is a special problem in the combat area, which arises from the fact that troops in the front line, from necessity, are often on restricted rations and under constant nervous tension. The wounded men that come to the hospitals have ravenous appetites. They will eat three or four servings of food at a meal and they are not particular about the kind of food so long as it is hot and good. This condition persists for a week or more until their appetites are satiated.

The dietitian's responsibilities for planning meals and the preparation of foods vary. Her headquarters are usually in the office of the mess officer of the hospital—although in some hospitals, particularly where there is more than one dietitian and where the dietitian is responsible only for the special diets for patients, she may have

[1] Received for publication May 6, 1944. At the time this paper was written, Colonel Howe had recently returned from a tour of the Theaters of Operation and the content of his paper, therefore, is based on his personal observations.

[2] *Editor's Note.*—Captain Pritchett is an active member of the American Dietetic Association and a graduate of an approved training course for dietitians.

her own office. She supervises the service of food as it is placed in the food carts and finally served on the wards. The menus for all patients are planned by the dietitian and she supervises the cooking, although in some hospitals the mess sergeant has the responsibility of the ambulatory patients' mess.

Where there are dietitians on duty (and they are absent in some cases because of their scarcity), there is no question of their influence on the quality of the food served patients and usually on the mess in general. Most of the special problems in the Army arise from unforeseen difficulties and special situations that must be met by improvisation and adjustment. With regard to the food service in Army hospitals, it is in such situations that "rule of thumb" procedures fail, and the dietitian's background of knowledge of foods and nutrition, the fundamentals of cooking procedures, correct combination of foods, and her well-developed "food sense," organization ability and knowledge of equipment, help her to meet the situation. Her capabilities and knowledge are especially evident in relation to the use of native foods new to the soldier and in those difficult situations that sometimes occur in the Army when, for strategic reasons, the food supply is limited. Under such conditions superior cooking is the best means of attaining acceptance of food innovations and of maintaining the soldier's morale and assisting in his recovery. The ability, versatility, common sense and diligence of the dietitians in performing their duties were evident in all the theaters.

Eating in Eritrea

As a dietitian in the armed forces of the United States, "somewhere in the Middle East," it was with considerable pride that I read the following comment in a local paper: "Thrice cited in official communications as the best hospital unit in the Middle East, the ——— Station Hospital, under the command of Col. C. E. Haberlin of Bridgeport, Connecticut, is now in ———, arriving from Eritrea."

The problems of transportation, housing, feeding, and the greatest of all—that of supplies—can be freely discussed only after the war is over. When we reached our first home or base, ahead of supplies, an interesting problem in my field presented itself. It was necessary to begin at rock bottom. Our equipment consisted of two 10-cent can openers, two 10-cent knives, a trunnion kettle, a coffee urn, and a dishwasher. There were 2 stoves installed, each about 25 feet in length, fed by oil and air from a blow torch. This was the stationary set-up, but the most important problem was to determine the boiling point of water, which was found to be 94°F. The use of the word "problem" here is well-considered. Perhaps every cook book should state that the boiling point of water is usually assumed to be 212°F.; at least such books might call attention to the fact that circumstances, in the broadest sense of the word, will always play a major role in cooking.

The next problem, to secure enough food to prepare for an influx of several hundred people from enemy-occupied territory, was somewhat more difficult. We were placed on British rations for a period and tea for breakfast was our initiation to these. Until supplies and equipment came, the following menu did not vary: Breakfast—oatmeal with sweetened condensed milk, dry bread, and tea; Lunch and Dinner—meat stew (canned), dry bread, and tea. There was no complaint, for the situation had to be accepted. It has long been said that an army moves on its belly; but there were times when the belly seemed to touch the backbone. The experience had its advantages, for we in America have had so much, and for so long.

The day that supplies began to filter in was one of true celebration. A partial list of much-wanted items included: aluminum spoons and ladles, monel metal pots and pans, large dishpans to use as mixing bowls, measuring cups, spoons, and long-handled forks. The first cans of American food that graced our shelves were doubly blessed. We drew 10 days' rations at a time and the amount was quite sufficient when used with discretion. Those who have so carefully planned for our welfare over here should be commended.

Local varieties of fresh meat (goat and water buffalo) were a grayish-purple color, stringy, and without a vestige of fat. In Eritrea, the rains come once a year, in the spring. By winter, it is quite dry; however, the dew permits a small amount of vegetation to grow but it is not very succulent. Lengthy cooking was required for all meats and vegetables and the matter of vitamin retention could not be taken too seriously. Seven hours in the pot was the usual time for meat which had been cut in small pieces for stews, braised and boiled meats. A 10-pound piece, in fact, would not become tender enough to slice. As for wild animals, kudu and boar were the most common and quite fine eating, too. If the kudu was young, broiled steaks were possible; boar was best when eaten as a roast. The animals were skinned and prepared for cooking by the butcher; the hides were tanned and made beautiful wall hangings or rugs.

Certain vegetables were in abundance. Greens which resembled kale were always plentiful and the best food in the Eritrean district, if properly prepared. Squash was served as a baked or mashed vegetable. It was never popular, but I hope I will be forgiven when I say that by calling the prepared dish mashed sweet potatoes, I found that the product was consumed with considerable gusto. It was a really good and palatable food, and justified the use of the misnomer.

The popular Italian zucchini was not often prepared since frying in deep fat was not in keeping with our rigidly simple cuisine nor with the need for conservation. Zucchini boiled and flavored with oleo was not too tasty and there was little body to the final product. Lettuce was used as a garnish once a sufficient supply was available in our own garden to meet the need. A boiled fruit dressing was possible now and then, providing we had a thickening agent.

Desserts were chiefly canned fruits. Any baker would have a difficult time without yeast, flour and shortening; but every now and then we accumulated enough materials to treat the boys to cinnamon buns. Then, with coffee giving off a delightful aroma, life was particularly good.

Navy beans and rice were so very dry when they reached us that soaking for 36 hours and cooking for 12 hours were not sufficient. Our last lot was much better and the night we were able to have baked beans was one long to be remembered. The cook asked if they were to be Boston baked beans. My reply was guarded (Army style). I suggested that we were taking a great deal upon ourselves in Eritrea and that it might be advisable to call them merely "baked beans" hoping to reach Philadelphia first and then eventually push on to Boston.

The dehydrated foods were a boon in connection with a varied menu, particularly the vegetable soup. Bean and pea soups were not so popular, for they needed additional seasoning such as only a ham bone or a piece of bacon would provide and unfortunately we seldom had either. The dehydrated potato, too, added variety to the menu, cheered the K.P.'s, and really had no equal as a time and food saver.

These fresh and dried rations were supplemented with American canned foods: corned beef, luncheon meat, salmon, peas, corn, all fruits, and sweet and sour pickles. As you can see, we really fared very well and could not complain. The lack of milk, butter, eggs, and coffee was noticeable simply because there had always been an abundance of these.

Perhaps a recipe for Eritrean cooking could be stated as follows: Rub the bowl well with common sense, wash the food thoroughly in clean and precious water, cut the food into small pieces, and cook for an eternity (or until mess call), season with a sense of humor and pray until placed before you.—*Second Lt. Florence H. Lutz, H.D., A.U.S.*

Editorial

WOMEN AND POSTWAR POLICY-MAKING

In May 1944, representatives of twelve national organizations of women convened at the White House to discuss preliminary plans for the participation of qualified women in the conduct of public affairs, national and international, especially as these concern postwar policy-making. This meeting, sponsored by the General Director of the American Association of University Women, the President of the National Federation of Business and Professional Women, and the Director of Field Service, National Education Association, was followed by an all-day session at the White House on June 14, called by Mrs. Roosevelt and sponsored by the President of the General Federation of Women's Clubs, in addition to the three representatives of organizations mentioned above.

The President of the American Dietetic Association, Nell Clausen, was among the two hundred women, representing seventy-five of the largest and oldest organizations of women, who attended this meeting in the East Room of the White House.

Commenting on the results of the meeting, Miss Clausen said, "The purpose of the meeting was to bring the names of qualified women to the attention of the Department of State, and it was gratifying that just that was done. No attempt was made to form another organization."

Further details will follow shortly in the *A. D. A. Courier* concerning the conference and the method of selecting and proposing the names of women qualified to serve as official delegates of the Government and as official and technical advisers and staff members on policy-making conferences and domestic commissions.

The American Dietetic Association is the only national organization which is concerned specifically with the problems of applied nutrition. Its members are both academically and practically equipped to apply this science; as such, they now have an excellent opportunity to see that a qualified member or members are appointed to responsible positions concerned with one of the greatest problems facing the world today—the proper feeding of our own people and those in other lands.

Women have been called upon to share the burdens of war, to stand side by side with men on the production line, and to aid them on the fighting front. So must they share in the building of a better postwar world.

HOUSEKEEPING THEN—AND NOW?

Under the picturesque subhead, "Swan and Smith Slug It Out in 1865–66," the *Vassar Alumnae Magazine* for March 1 presents some entertaining escapist literature, especially to the dietitian, concerned with the trials of a Mr. Smith, the first steward of Vassar College and, in his devotion to duty, a worthy lineal antecedent of the college residence hall director of today.

Mr. Smith, who, incidentally, was one of the original cough drop Smith Brothers, seemingly had failed at the time to find his cough drop factory sufficiently remunerative and had obtained the post as steward at Vassar. Mr. Swan, on the other hand, was a member of the Board of Trustees, also the college superintendent, and thus wielded it over Mr. Smith. Rozanne Garrett, '43, while preparing a thesis in history, exhumed the original correspondence which passed to and from Messrs. Swan and Smith, during the course of which, it appears, never a kind word came from upstairs to the harried Mr. Smith downstairs.

The opening missile from Mr. Swan reads in part as follows:

> The dinner today was very poor—besides numbers had no taste of meat because there was not enough. This *course* of things continued will ruin the College.
>
> In regard to noise by servants—You have been again and again notified of this fact without effecting any amendment. Whenever flagrant instances of it are brought to my notice you may expect that I shall be sure to remedy it.
>
> The sick were badly cooked for today. But for my interference they might have had nothing—certainly until too late. As it was I ordered a broiled chicken which went to the sick without any breast.

To which Mr. Smith replied:

> It is my endever to meet the wishes of the School as regards the choice of meats yet it will often happen we will run short of one varety this can not very well be avoided unless I provide such quanties that would be unwarntable. it is my study to guard against to much expense yet have enough. thare is always plenty for every one and as regards the assertion thare has not ben any thing to eat in the College for the past tow or three weeks; the remark together with the funder of it are subject for silent contempt at least this is my mind. The fact is complaints come from persones who never had enough at home, and what they did have was of such a poor cheap quality and so little of that even that they dont know what good living is. I know they do get good living and the wonder is how it can be afforded when I am compeled to be governed by the whims and caprice of some, and serve up extry meals or extry dinners to individuals it will happen when I have less to do than now. I have no favorites in the house all are alike to me. I know no difrence in individuals this of course is against my popularity. I am sensible I am not a faveroite with many. this I cannot help it may be unfortuneate for me; I do not know, and more I do not care. I onely know my duty, this I will do to the best of my judgement and ability *when there are real mistakes and errors* I will be most happy to be informed.

Whereupon Mr. Swan appears to have retired in dismay for ten days, coming up at last with this:

> "Resolved that the reply of the Steward to the Superintendent's letter of the 5 instant is disrespectful and improper and that such conduct deserves our notice and condemnation" and demanding that the Steward present a Report forthwith to the Superintendent giving an account of the knives, forks, spoons, silverware and crockery and of the table cloths and napkins in his Department belonging to the College and that until such a Report be rendered the Treasurer be directed to withhold further payments to the Steward for his services.

Mr. Smith, who seems to have been quicker on the draw, within two days replied, "I regret nothing I have said or done." A month went by, during which Mr. Smith apparently held his position and any advantage gained by his ultimatum. Then came another Swan broadside:

> The hukkabuk toweling which came yesterday I supposed was brought here by mistake but have just learned it has gone into your hands. I regard this as inadmissable in two respects. In the first place I claim the sole right to purchase all articles not actually consumed in your Department.
>
> In the second place I cannot concientiously consent that material so nice and expensive as that be used for kitchen or Dining room purposes. I therefore wish you to return all that material to this office.

But Mr. Smith—obviously a man of immediate and purposeful action as proved by his subsequent success with cough drops—sprang to his defense the very same day with this masterly retort:

The sole and onely reason I bought them Towels was through stern necessity we did not have half towels enough to do our work half decent and even then those we did have were not appropriate for drying dishes at least most of them and then again my Help had to be supplied with towels from even our small number thus reducing our number to a very limited suply. I have been as patent as posible and encouraged my help to get along as well as posible untill such time as I could procure more. It will be a necessity to have towels from some source immedeiately.

Again, as before, Mr. Swan apparently retreated in disorder to what for him seems to have been a hastily prepared position, for after a week's cogitation he hurled this at Mr. Smith:

It is so long since I have had your report about crockery, I must await that before purchasing anything but small soup plates. In connection with the subject of mush and milk allow me to say the mush at the tea last night was neither sufficiently or properly cooked.

Heating urn and chafing dishes by steam when they are movable is certainly a novel idea but one which seems hardly within the present range of our funds.

Alcohol is expensive and what is more it will be used as a drink unless protected but there seems no alternative but to try it.

I observe a little child about the dining room It must be removed as we have no places for such small people at any price.

Mr. Smith, like a good tactician, held to his original position on receiving the foregoing, brushed aside the Swan delaying-action reference to mush, alcohol, and a wandering waif, and firmly said:

Necessity compells me to say to you that unless you provide me with towels for drying dishes and for rolers and my Help, I will be compelled to precure them myself. and I can pay for them mysself in case I am denied the privilage of buying them on account of the College. The towels I must have and verry soon. Dishes, Faces, Hands etc. must be dried.

This served to hold off Mr. Swan for two whole weeks, but on St. Valentine's day he approached the enemy from the rear, thus:

Complaint comes to me about the character, the material and the Baking of the black cake last night and I think once before. That sort of food is too expensive and quite too indigestible for College purposes.

In the same connection and for the same reason all cream cakes or cream puffs should be discontinued. The various kinds of cake made with molasses are abundant for all ordinary occasions.

Mr. Smith evidently ignored this or perhaps he was too busy with a certain Miss Lyman and the mystery of the empty sugar bowls, for he wrote to her the same week as follows:

You will excuse me in calling your attention to a verry unpleasant practice being carried on by some of the Students. they are in the habit of entering in the Dinning Room and emptying out Sugar Bowls of thir contents. for some time I was under the impression it was some of the help, but could not trace it to any one person. I therefore instituted a plan for the detection of the parties. the sequence was two of the Young Ladies (students) were caught in the act. the names we withhold, but in future it may become necessary to be more severe. One other verry wasteful practice is at meal time many of the students help themselves to large quantities of foode of all kinds and leave it on their Plates, needlessly so I think. it is my duty to watch everry appearance of waste in the Stewards Department.

A month went by, during which Mr. Swan appears to have been delving into dietetics, possibly as a surcease for his seeming defeats at the hands of Mr. Smith. Then again he wrote Mr. Smith:

I learn there have been a number of breakfasts supplied with meat, potatoes, eggs and hot rolls or cakes. This seems very extravagant. Use eggs very sparingly—never eggs and meat at the same meal. If roast potatoes were provided frequently they would almost make the breakfast with bread and butter. Ham should be used rarely—it is not wholesome here. I learn that servants as well as pupils are served with meat and eggs at the same meal. An ocasional breakfast with roast potatoes and rolls or cakes without either meat or eggs would do. Never have meat more than twice a day.

But the softening influence of spring was now at hand and Mr. Smith waited a month, then replied in a conciliatory tone:

Although I have not answered some of your epistles of late, at the same time I have not been indifferent to the instructions contained in them. I make it my constant study to do all I can to keep peace and good order in the family, and think we are approximating to this all the time, whenever I am aware of any excess of noise, or mischief I *generally* correct it.

While spring may have served somewhat to soften Mr. Smith, at the same time he stuck to his muttons and asked for "a proper place to store meat in—the Cold Corn Beef we had for breakfast was tainted just enough to spoil it for eating." He also sagely observed, "A cooler built upon the plan *I* wanted last fall, will keep anything from spoiling." But time went on and still he had no ice box. And if there be any moral to this story it can be found in the fact that Mr. Smith was not reappointed and for each of the next three years there was a new steward at Vassar.

REPORT OF NOMINATING COMMITTEES, AMERICAN DIETETIC ASSOCIATION, 1943–44

The Nominating Committee of the American Dietetic Association—Ruth Forsberg, Constance Hart, Jean Hawks Hewetson, Martha Pittman, and Nelda Ross, chairman—presents the following ballot for 1944–45:

President-Elect: Bessie Brooks West, A.B. and M.A., University of California. Positions held: instructor, institution management, Teachers College, Columbia University, home economics, University of Hawaii, and institution administration, University of Washington; since 1928, head, Department of Institutional Management, Kansas State College. Publications: co-author, *Food Service in Institutions*, and *Food for Fifty*. Professional activities: chairman, Professional Education Section, 1940–42, Secretary, and chairman, Membership Committee, 1942–44, American Dietetic Association; president, Kansas Dietetic Association; chairman, Department of Home Economics in Institution Administration, American Home Economics Association.

Secretary: Marie Hines, A.B. and B.S., Western Reserve University. Positions held: instructor, home economics, Willson Junior High School, Cleveland; instructor, institution management, and consulting dietitian, Western Reserve University; since 1930, director of dietetics, University Hospitals, Cleveland. Publications: articles in *Modern Hospital*. Professional activities: president, Ohio Dietetic Association, 1941–42, member, House of Delegates, 1943–44, chairman, subcommittee, Professional Education Section, American Dietetic Association; chairman, Nutrition Committee, Cleveland Health Council, and Dietary Committee, Cleveland Hospital Council; member, Committee on Nutrition in Industry (Cleveland), Committee on Graduate Education in Public Health Nutrition of Western Reserve University, Committee on Organizing Canteen Courses in Cleveland, Nutrition Committee of the Cleveland Welfare Federation and Civilian Defense, Committee on Maternal Health of the Children's Bureau, and Ohio Nutrition Committee.

Editor's Note: See p. 555 of this JOURNAL, June–July 1940, for reference to the Constitution concerning the method by which other nominations may be made.

Secretary: Margaret A. Ohlson, Ph.D., University of Iowa. Positions held: dietitian, Sacred Heart Hospital, Spokane; instructor, University of Indiana; assistant professor of foods and nutrition, Michigan State College; associate professor of foods and nutrition, Iowa State College, 1935–44; appointed head, Department of Foods and Nutrition, Michigan State College, effective September 1, 1944. Publications: studies on iron and copper metabolism, and nutritional status of young women; co-author, *Laboratory Handbook for Dietetics.* Professional activities: member, Investigation Board, 1936–39, and Membership Committee, 1941–43, American Dietetic Association, Iowa State Nutrition Committee; president, Iowa Dietetic Association.

NOMINATING COMMITTEE

The following candidates (five of whom are to be elected) for the Nominating Committee for 1944–45 have been selected as representative of special fields of interest in the profession: *Hospital*, S. Margaret Gillam, M.S., chief dietitian, New York Hospital, and president, American Dietetic Association, 1930–31; Elizabeth Perry, B.S., chief dietitian, Cunningham Sanatorium, and director of dietetics, City Hospital, Cleveland, vice-president, and chairman, House of Delegates, American Dietetic Association, 1941–43; J. Marie Melgaard, director, Dietary Department, University of Oklahoma Hospitals, Oklahoma City, formerly assistant to Chief Supervisory Field Inspector of Subsistence, Office of the Quartermaster General, Washington, D. C., and chief dietitian, U. S. Naval Hospital Corps. *Industry*, Ruth M. Kahn, M.S., director of field nutrition, Harding Brothers & Williams, Industrial Caterers, Chicago, and food production manager, Dodge-Chrysler Plant, Chicago, Secretary, American Dietetic Association, 1936–38. *Consultant*, Marie Casteen, M.S., food and nutrition consultant, 1134 West Palm Lane, Phoenix, Arizona, and president, Arizona Dietetic Association, formerly supervisor, food production departments, and director of food research, Hotels Statler Company, Inc., New York, and technical consultant on industrial feeding problems in war plants, National Research Council, Treasurer, American Dietetic Association, 1941–43. *School Lunch*, Winning S. Pendergast, B.S., M.A., supervisor, School Lunchrooms, Board of Education, Detroit. *College Food Service*, Alice M. Fenno, director, Dining Halls, Graduate School of Business Administration, Harvard University. *Public Health*, Elizabeth Baldwin, B.S., home economist, State Public Welfare Commission, Portland, Oregon, formerly administrative dietitian, Children's Hospital, University of Iowa, assistant administrative dietitian, Montefiore Hospital, New York, and dietitian, R. C. Coffey Clinic and Hospital, Portland, Oregon.

HOUSE OF DELEGATES

The Nominating Committee of the House of Delegates —Fern Gleiser, Katherine Heitshu, and Marion D. Floyd, chairman—announces the following nominees: *Secretary* (one to be elected): Selma Streit, Scottish Rite Dormitory, Austin, Texas; and Harriet Warmington, Veterans Hospital, Minneapolis. *Nominating Committee* (three to be elected): Felisa Bracken, Department of Public Welfare, Baltimore, president and delegate, Maryland Dietetic Association; Virginia Gallagher, Department of Finance, Budget and Business, Olympia, Washington; Rosemary Lodde, Indiana University Medical Center, Indianapolis, president and delegate, Indiana Dietetic Association; Lavern Owens, Department of Institutions, Sacramento, California; and Phyllis Sprague, Office of Distribution, 600 N. 2nd Street, Harrisburg, Pennsylvania.

Nutrition and the War

NUTRITION PROGRAM IN A METROPOLITAN AREA[1]

JULIA C. DWIGHT[2]

Visiting Nurse Service, New York

I have been asked to give you a picture of a nutrition program in a metropolitan area, as contrasted with the programs set up in smaller communities. The program I shall describe is that of the Henry Street Visiting Nurse Service, New York, a large organization serving three boroughs of the city with a population of approximately four and one half million. There are about 300 public health nurses working out from 16 center offices scattered throughout the city who visit about 100,000 patients each year. In each home visited it is the nurse's aim to be aware of and help meet the health needs of each member of the family as well as the family group as a whole.

Five years ago, with the realization of the key place which nutrition was taking in the field of preventive medicine and public health, the organization planned to improve its family health service by greater emphasis on this subject. A nutrition consultant accordingly was added to the staff to aid the nurses in meeting the individual nutrition needs of the thousands of families visited each year. Instead of organizing the program on a direct service basis, whereby nutritionists work in the community with the public health nurses, it was planned that one nutritionist would act as consultant to the entire organization. Therefore, it should be emphasized that although the ultimate purpose in setting up this nutrition program was the same as that of any other—to benefit the people in the community—it was planned directly for public health nurses rather than for lay persons.

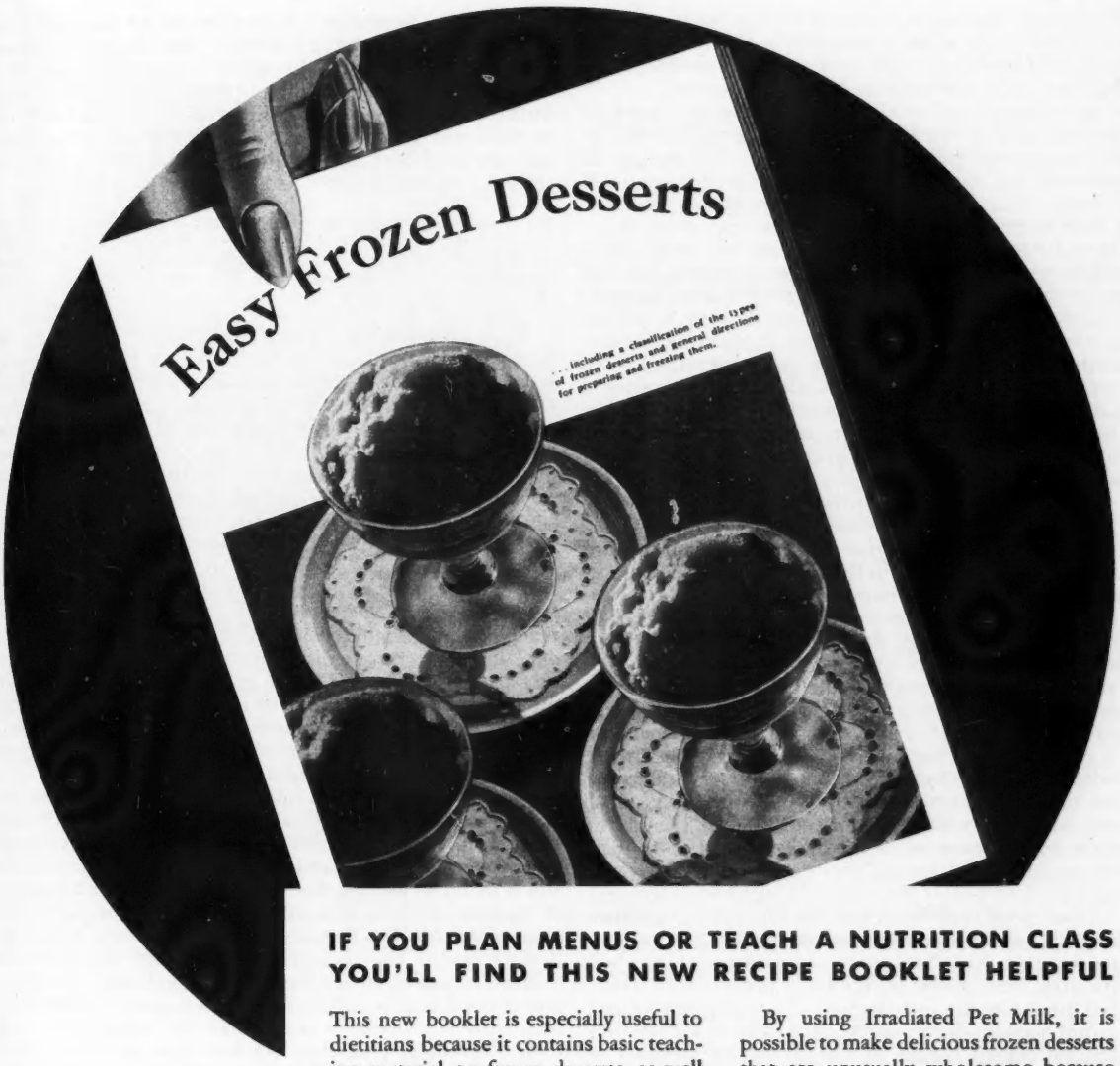
In the nutrition service of any large organization, the question, whether to have a staff of highly trained nutritionists give direct service to a few clients, or to have a nutrition consultant keep all members of the staff informed and thereby give a more diffuse service to a much larger number, is highly debatable.

To list briefly some of the advantages of the consultant service: First, the nutrition teaching reaches a far greater number of people. Every member of the organization is kept up to date on the latest nutrition findings, which should affect not only her teaching but also her own pattern of living. Another advantage is that it gives the nutrition consultant more time for community activities and for long-range planning. She also has more time to keep in touch with other agencies, always an important consideration in any program in a large, complex, highly organized city like New York. Another very practical consideration, from a national viewpoint, is the limited number of well-qualified nutritionists in the United States. Is it wise to concentrate these well-trained people in a few large cities in certain sections of the country only? Might it not be better, for the present at any rate, to spread their influence as far as possible through all public health channels?

Moreover, this latter program influences both those being taught and those teaching health education by making the subject of nutrition an integral part of the larger field of public health, and not a separate entity as it is very often considered when divorced from the rest of the health teaching, and taught by nutrition specialists only.

[1] This and the following four papers were presented before the American Dietetic Association, Pittsburgh, October 22, 1943.

[2] Now serving in the Waves.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This new booklet is especially useful to dietitians because it contains basic teaching material on frozen desserts, as well as a wide variety of sugar-saving recipes.

All of the recipes are for fine flavored, fine textured frozen desserts which give meals a desired variety. Some of the recipes show how evaporated milk diluted with water can be used in place of ordinary milk. Some show how undiluted evaporated milk takes the place of cream. Others demonstrate the use of whipped evaporated milk to replace prewar whipping cream.

By using Irradiated Pet Milk, it is possible to make delicious frozen desserts that are unusually wholesome because Pet Milk supplies more than twice the amount of whole milk substances that ordinary milk supplies and, in addition, furnishes extra vitamin D because it is irradiated.

The use of Irradiated Pet Milk helps you to save money, too, because Irradiated Pet Milk costs much less than cream—and costs less generally than ordinary milk.

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That which is sacrificed in special knowledge is compensated for by the increasing integration of nutrition in all public health teaching. And little need be sacrificed, providing the staff is well trained and well supervised.

In such a program, however, one nutritionist cannot do a thorough job of teaching and supervising 300 public health nurses scattered over a wide area. Not being able to work with all, she must select certain groups, who will pass on to other members of the organization whatever help they receive, and concentrate her work with them.

Henry Street Visiting Nurse Service is a teaching agency as well as a service agency, and there are many different groups with widely varied backgrounds working together: all the undergraduate nurses from 12 major New York hospitals, about 720 a year, who have one or two weeks' observation in the field with the public health nurses; nurses doing postgraduate work at Teachers College who come for a 4-month affiliation and for field experience; a small number of interns in public health supervision and medical students who study and observe our program. In all, about 1300 students will participate in the organization's program this year. We introduce the program to groups of newly appointed staff nurses three times a year.

Most of the efforts of the nutrition consultant are directed toward two groups in the nursing staff—the supervisors and the new staff nurses. The supervisor is the logical person in each center office to head the nutrition program as she reaches all the student groups mentioned above, follows up the nutritionist's work with the new staff nurses, and supervises the nutrition teaching done by all members of the staff. Part of the supervisor's responsibility is to see that any staff nurse, experienced or not, is encouraged to improve her knowledge of nutrition as needed. We have found that having nurses responsible for teaching other nurses nutrition, under supervision of a nutritionist always available for consultation, stimulates the nurse teacher to obtain more accurate and up-to-date content material, and has a definite advantage in having the nurse student accept the material taught as an integral part of all good nursing care, and not just another specialty. I cannot stress this too strongly.

Since we are in New York, with its countless educational opportunities, few lessons on the basic principles of nutrition are given by the nutritionist. The majority of the staff do not need this information; those who do are referred to nutrition classes taught in the several universities in the city. Others are encouraged to use material on hand. We have an up-to-date and fairly comprehensive library of books on many different subjects related to the science of nutrition—theory, cook books, books on marketing, budgeting, racial food habits, diet therapy, etc. We have similar educational files in each center office with current information in the form of reprints and pamphlets, for both the nurse herself and her patients. Additional help is given in conferences with supervising nurses, either on the content of the nurse's teaching, her methods of teaching, or perhaps a discussion of where needed information can best be obtained.

The new staff nurses are taken into the organization in groups, and they perhaps need nutrition guidance most, since many have not acquired a public health attitude toward nutrition, and others must master nutrition principles and method of teaching in this new situation.

Pre-tests are offered in various fields to new staff nurses and graduate students so that supervisors and the nurse or student immediately gain some idea of where prompt help is needed in supplementing the individual's knowledge. We have been fortunate in getting well-trained nurses for our staff, and the majority have had good basic courses in dietetics. The pre-test does not cover scientific knowledge of nutrition, primarily. It is planned to emphasize the practical side of teaching nutrition—knowledge of common recipes, of marketing, of available low-point foods which are also good buys for families with limited incomes. Also, in the pre-test the nurse is given hypothetical situations in which she must tell how she would organize her material, decide what she would teach, and give reasons for the teaching points she would use. For example:

A young Jewish primipara (of orthodox family) dislikes milk and has never drunk it. She is troubled with constipation. (a) Outline your teaching regarding the importance of milk. (b) What suggestions would you give her about her diet? Include a sample plan for one day's menu.

We hope in this way to encourage the nurse entering the field of public health to see the broader aspects of teaching nutrition and to comprehend the importance of a practical approach as well as a background of scientific knowledge.

The next step in the introduction of new staff nurses and graduate students to the teaching of nutrition is one or more group conferences with the nutrition consultant. At this time emphasis is placed on the fact that most of the nurse's teaching for all age groups will be concerned with normal nutrition rather than diet therapy. This teaching philosophy is quite new to some nurses who have had only hospital experience. At this time, too, the nutritionist repeats and stresses the practical approach, *i.e.* teaching nutrition in terms of food, recipes, market orders, etc., and the fact that discussion of the diet should always be a part of good nursing care in every family visited. At other conferences nutrition as it relates to family groups in the community, communicable disease, noncommunicable disease, maternity, infant care, health of the school child, adolescents, and adults is discussed.

Because good nutrition must always begin at home and no one can be a convincing teacher unless he thoroughly believes in what he is teaching, an individual conference with each new staff nurse comes next. Previous to this, she is asked to analyze her diet for a typical day in terms of calories, protein, minerals, and vitamins and compare the results with the National Research Council standards. A discussion of this dietary is the basis for the individual conference, which covers the nurse's food habits, problems, and present health status, as well as general discussion of the district in which she is nursing—the racial groups and their food habits, outstanding nutrition problems, marketing conditions, average income level, main health problems and their relation to nutrition, etc. Is she satisfied with her methods of teaching, and is her teaching effective? Is her scientific knowledge adequate? How does she feel about her own nutritional status, in view of the fact that she is constantly teaching others how best to eat?

I usually try to emphasize that the public health nurse is regarded by her patients as the nurse in turn might regard a nutritionist: everything that she puts into her mouth at lunchtime, or the chance remarks she makes regarding her own food habits, as well as her appearance, vitality, weight, etc.—all these are far more enlightening to those she is trying to teach than anything she might say. I also find it necessary constantly to urge nurses new to the field of public health to have more faith in their own knowledge, more confidence in their ability to help others with food problems. Many times they feel they have little to offer in the face of seemingly overwhelming obstacles of sickness, low income, bills, lack of knowledge of food values and cooking methods, and the thousand and one complex factors that contribute to lowering the adequacy of a family's diet. I've had many a nurse remark in despair, "With her problems, I'm sure I could never do

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- Full-size sample packages of "Junket" Rennet Powder and "Junket" Rennet Tablets.
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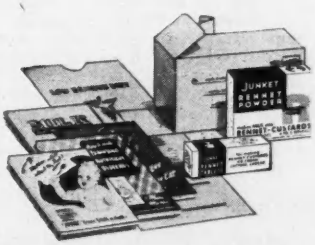

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half so well!" To be sure, there is always something we can learn. But on the other hand, such an attitude does not make for progress. It is necessary for the public health nurse to remember that she has had years of training in the sciences—chemistry, physiology, dietetics,—that her intelligence is above average, and that she has constant access to others with more experience in dealing with such problems, and with an even greater basic knowledge than herself. With these assets, then, she should be able to meet almost every situation equally as well, if not better, than someone who does not have her peculiar advantages. In regard to food, this would mean, for example, that no matter how inadequate the amount of money available for food, the nurse is in an enviable position to make practical, constructive suggestions for the spending of the available money so that a better planned diet and better health for the family will obtain.

During the first few months on our staff, all staff members and graduate students are given an opportunity for concentrated nutrition teaching in at least one family. This, termed the nutrition guidance study, offers a further means of encouraging the new nurse to use available teaching aids, to put into practice some of the ideas about the close relationship of nutrition and public health nursing which may be new to her, and to learn under supervision the significant relationship of various factors (such as marketing habits, knowledge of simple cooking, racial and religious food customs, economic level, individual likes and dislikes, attitudes of the parents and grandparents, and ability to plan wisely for the spending of the total income) to the food actually eaten by the family. All the foregoing factors are considered in addition to whatever knowledge the family may possess about food values. I believe that any nurse who has studied and tried to help even one family in this manner will never again be satisfied with a superficial discussion of the diet in terms of minerals and vitamins.

Other services of the nutrition consultant are:

1. An individual conference with any nurse whose annual physical examination shows any condition which would seem to have a nutritional basis such as overweight, underweight, low hemoglobin, undue fatigue, constipation, diabetes, etc.
2. A nutrition bulletin which goes out to each center regularly, usually once a month.
3. Conferences and case discussions with student groups or with entire center staffs, as requested.
4. Supervision and a follow-up conference on the nutrition teaching done in our 40 mothers' clubs for pregnant women.
5. Consultation and suggestions to our nurses working in industrial plants and in nursery schools and day-care centers, concerning the organization and development of their health education programs.
6. Posters, charts, and other teaching aids and materials.

In regard to this last point, one advantage of being in a metropolitan area is that it is possible to obtain the cooperation of groups like Artists for Victory, Inc., who have voluntarily made our posters and teaching charts this past year. Also, in regard to teaching materials, the need for adapting them to suit the organization's needs should be stressed. For example, by means of the game Vita-Min-Go, any diet can be easily rated for adequacy by a lay person, on the basis of N. R. C. standards for a moderately active woman. However, I did not feel that measuring the diets of all age groups against the requirements of a moderately active woman would be sufficiently accurate for public health nurses. By inserting a mimeographed sheet which shows how to use the game for rating food eaten by other age groups, we have found Vita-Min-Go much more useful, especially with children and pregnant women. It also seems particularly suited to teaching the antepartum diet, as it is simple for the pregnant woman to grasp the quantitative differences between normal requirements and her needs while pregnant.

Perhaps I have digressed somewhat from the strict interpretation of my subject, "A Nutrition Program in a Metropolitan Area," and wandered into the narrower one of "Teaching Nutrition to Public Health Nurses," but as the two are indivisible in our particular agency I hope this will be excused.

This discussion has not given you, I am well aware, a picture of a nutrition program reaching into every phase of the community's life, as a nutrition program in a rural or smaller community can and should do. I have worked in a rural area and also in a small community, and I remember very clearly the delight and deep satisfaction that comes from inaugurating a direct service and reaching more and more members of the community by various methods. This should be the aim of all nutrition programs, and a great effort is being made in New York to attain this goal. But in a metropolitan area each agency can do only that part of the total job that is definitely connected with its own work. This means that in order to avoid duplication and permit a well-rounded nutrition program to be developed and reach all members of the community, there must be a very high degree of cooperation between the nutritional personnel in the various agencies. In New York all nutrition programs are coordinated under the New York City Food and Nutrition Program, including those of such agencies as the Departments of Health, Welfare, Education, Markets, and Hospitals, and all private agencies serving the city. Recently, over 77 agencies agreed to participate, and of these 31 have separate nutrition programs. Through these or through special committees, many approaches have been made to groups in the community. Newspaper articles on nutrition have appeared in the large daily papers and short, simply-worded articles on different phases of nutrition in smaller newspapers in 18 foreign languages; and weekly radio talks have been given. In addition, several forums for the public have been conducted at the New York Times Hall. Nearly 800 Red Cross nutrition courses, reaching over 13,000 housewives, were taught in 1942 as well as hundreds of less technical and shorter courses. Classes for restaurant chefs and owners were held, stressing menu planning and quantity cooking methods to conserve food values. Committees were organized to evaluate all printed material and films available for teaching. A series of subway cards carried hints on cooking and preservation of food values. Demonstrations and lectures were also given. There were canning demonstrations and classes during the summer and fall, with an attendance of 14,000. There were special classes for the "health proctors"—teachers interested in promoting good health and preventing poor health in the public schools. There has been considerable work done in connection with the public libraries, so that up-to-date nutrition textbooks have been supplied and nutrition posters and exhibits shown to stimulate the public's interest. Nutrition exhibits have been set up in stores, health centers, and other key places throughout the city, with trained people on hand to answer questions, give information, etc. Some help has been offered to day-care centers, and probably much more will be done for these centers. Some work has been done, on a small scale, with industrial groups, and it is hoped that more will be accomplished in this field during the coming year.

Hence, although their work represents but a small portion of the city's huge food and nutrition program, public health nurses are making a quiet but important contribu-

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tion by teaching every day, in thousands of homes, the principles of good nutrition and their relation to health, and what is more, how to apply the principles of good nutrition to everyday living.

NUTRITION PROGRAM OF THE IOWA STATE HEALTH DEPARTMENT

EVELYN HOLLEN[1]

Nutritionist, Iowa State Health Department

The nutrition program of the Iowa State Department of Health, now in its third year, has been planned to meet nutrition problems not covered by other agencies functioning in the state, and at the same time to cooperate with such agencies in amplifying their programs without duplicating any of their efforts.

While Iowa is essentially a rural state there are growing industrial areas in the larger cities. State agencies, other than the Department of Health, engaged in nutrition education are: the Home Economics Extension Service, Iowa State College, which serves the rural areas and towns under 2500 population; the Farm Security Home Management supervisors who serve only the people who participate in the FSA program; and the homemaking departments of public schools and home economics departments of colleges which serve a large group of homes through students in the classroom and homemakers enrolled in the adult educational program. Only one city in Iowa employs a nutritionist on the staff of the Community Chest organization.

These are the programs with which the Department of Health must be integrated and help to promote if the goal of sound nutrition information for everyone in Iowa is to be achieved.

To date we are developing four main activities: the staff nutrition education program which the public health nurses conduct in the field; the school nutrition program; the activities with the state nutrition committee; and the industrial nutrition program. Although we have a miscellaneous group of other activities, these are the projects which I shall describe.

Our staff nutrition education program has been planned and developed with the directors of public health nursing, who have cooperated with us in building a progressive health program. A short time after I came to the department, Marie Neuschaefer, director of nursing, invited me to join the advisory nursing staff and attend regular staff meetings. The privilege of attending the staff meetings has been of considerable help in planning and carrying out my program, for through them I gain a better understanding of the problems, programs, policies and goals of the various health districts of the state and, incidentally, these meetings also give me an excellent opportunity to promote the nutrition program.

Since much of the nutrition teaching must ultimately be carried out through individual contacts in the home, the public health nurse is a very important person in this program. Part of my job is to provide her with current information and demonstration teaching materials which she can use effectively.

This is accomplished by conferences with nurses at the staff meetings, and individually. In each case new research developments in nutrition are discussed, materials useful in reference files and for illustrating talks to groups are suggested, and the work of other nutrition agencies is explained. An example of this last point is the program of the Extension Service, Iowa State College. Nutrition education is accomplished by this agency through group meetings in rural areas for the same people our public health nurses serve. There are always families who, for various reasons, are not benefiting by the extension group lessons. When these families come under the nurse's care, she gives them the needed dietary instruction and discusses other ways, such as extension classes, through which they can learn more about nutrition. Each nurse, therefore, must have an understanding of the organization and operation of the other educational agencies.

Since the nutrition teaching done at the time of the home visit is so very important, we have been working to make it as effective as possible. Our director of nursing urges that some nutrition teaching be included in each home visit the public health nurse makes, with the amount of time devoted to this in each case determined by the need.

We had no way of knowing how much was being accomplished when it was possible for the nurse to make only one or two visits. We therefore devised a plan to increase the efficiency of these visits. I felt that one visit should include a short and simple demonstration which the nurse would enjoy making, much as she demonstrates other nursing techniques. The demonstration needed to be very convincing to the mother and adapted in content to the knowledge she already possessed concerning nutrition.

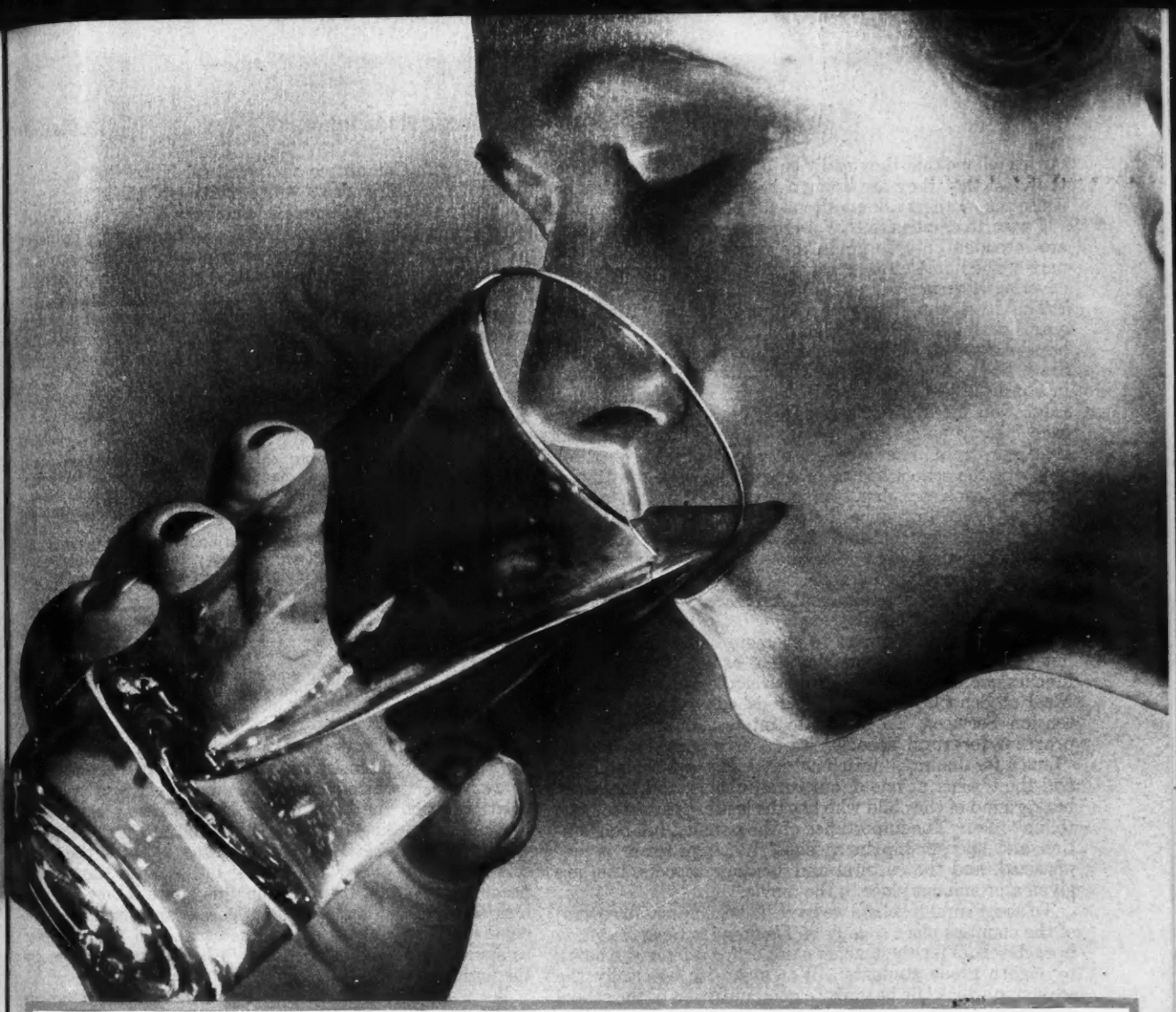
We set up three goals: to give the mother practical material which would help her in preparing meals to meet any existing nutrition problems; to instill in the mother and family an appreciation of the importance of food in building and maintaining health; to inspire mother and family with a desire to learn more about nutrition.

The illustrative materials we use are the leaflets from the Bureau of Human Nutrition and Home Economics and the Evaporated Milk Association, especially the latter's meal-planning guide in the leaflet on milk. This encourages better meal planning in families who are in the habit of eating from the kitchen cabinet at any or all hours of the day. We do not prepare our own printed material except when it is absolutely necessary, preferring to make use of the excellent material already available. For the demonstration, we use the attractive food value cards prepared by the Philadelphia Dairy Council which are similar to a large chart I have devised for use in group discussions. The nurses use the small cards in home visits in referring to the points I have emphasized in group teaching.

We have listed the following suggestions for the guidance of nurses in making nutrition teaching more effective: 1. Before making the visit, have a general idea of the family's nutrition problem and prepare in the office the tentative plan of teaching to be followed. 2. Begin the visit with a leading remark or question which will encourage the mother to tell her problem as she sees it, the food facilities of the family, what remedies she has tried to date, or what she feels might help now. 3. Select a leaflet which will increase the mother's interest and understanding of the discussion. 4. Plan a demonstration with the food value cards showing protective qualities of various foods. 5. Leave a leaflet of recipes for these foods. 6. Plan for the next visit.

In discussing each visit plan with the nurses, I suggest a sample home visit dealing with a specific nutrition problem in which we demonstrate how the problem is approached in a home where the mother has limited nutrition information and also one in which the mother is better informed. I have also listed 12 points to which the nurse will refer during her second visit in order to judge the effectiveness of the preliminary teaching. In turn, these evaluation sheets will be summarized in order to determine what accomplishments in general may be expected. The

[1] Miss Hollen is now on leave of absence, serving overseas as a dietitian in the Army Medical Department.



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nurses tell me that they really enjoy the nutrition teaching; they feel that they are doing a better job of teaching because the mothers ask questions and show more interest.

I wish to emphasize that these suggested teaching plans are intended only to guide the nurse in presenting that part of the home visit concerned with nutrition education, covering a period of from 15 to 30 minutes.

The Iowa elementary and rural school nutrition programs in which the Department of Health cooperates, have been planned by the Vocational Homemaking Staff of the State Department of Public Instruction and are outlined in a printed leaflet entitled "The Iowa Plan for Nutrition Education in Elementary and Rural Schools." Since each county public health nurse guides the rural school health program in her area, she also promotes the nutrition phase of the school health program. In staff meetings I discuss this state plan, the objectives of which are as follows: 1. To introduce the program to the parents and secure their cooperation. 2. To determine the eating habits of the children in schools. 3. To encourage an interest in good food habits. 4. To create a desire to acquire good food habits and to teach what foods are needed by the body.

I have urged the nurses to promote better lunches and hot lunches where possible. To assist in improving lunches, we use the Children's Bureau leaflet, "The Noon Meal at School," and others published by the state Extension Service. To stimulate interest in a hot lunch program for rural schools, we have prepared a movie, "Lunch for Johnny," which actually portrays the children and the teacher at one of our rural schools, and the home background of the child who has the leading part in a "true to life" role. The importance of the parents' full cooperation and sponsorship in a school lunch program is emphasized, and the cultural and sanitary aspects, too, are given a prominent place in the movie.

To assist rural teachers we have had the nurses in several of the counties place a copy of *The Road to Good Nutrition* in each school for the teacher's use or for reference reading by eighth grade students. We emphasize especially the section in which the hazards to good nutrition of the school child and means of preventing these are discussed. I have received requests to speak at Parent-Teacher Association meetings and feel this offers an excellent means of nutrition education.

The state School Lunch Committee, of which I am a member, is a subcommittee of the state Nutrition Council. In planning my program of work in both school and industrial nutrition I confer with Dr. P. Mabel Nelson, chairman of the state Nutrition Council, and I also report on my projects and activities at the Council meetings. In my field visits I call on county nutrition chairmen to offer help with projects. I also discuss the purpose of this committee with the county nurses and urge that they assist as much as possible in the program.

Our industrial nutrition program, now two years old, comes under the Division of Industrial Hygiene. We started by preparing a printed leaflet, "The Well-Filled Dinner Pail," copies of which were sent to plant managers in Iowa asking them to order the number their workers could use. As a result, 17,000 were distributed in pay envelopes to workers. Altogether, approximately 40,000 leaflets have been sent in answer to requests. While we have not been able to measure the actual use of these, at least one plant personnel director told me that he had given out 2000 copies in one day and not one had been found discarded on the plant grounds. This, to him, indicated that the men were taking them home and that they would be read. We also gave copies of the leaflet to the state presidents of labor organizations.

The state Committee on Industrial Nutrition, of which I am chairman, is also a subcommittee of the state Nutrition Council and includes the chairman of the state Nutrition Committee, the commissioner of health, the manager of the state Manufacturers Association, state presidents of labor unions, the industrial hygienist, the industrial medical consultant, the director of public health engineering, the industrial nursing consultant, the public relations director, and the regional industrial representative of FDA. This committee will aid in planning and promoting the program.

The services to industrial plants which we are developing include the following:

1. Suggestions concerning cafeteria or canteen meals and equipment, midmorning or midafternoon lunches, and home-packed lunches which furnish at least one third of the recommended daily requirement and are compatible with food shortages and the ration program.
2. Assistance in planning an educational nutrition program for workers in the plant such as: publicity in plant publications, posters, leaflets, exhibits, movies, interest-arousing contests, and illustrated talks.
3. Individual assistance to plants whose special nutrition problems do not come under any of the above.
4. Consultation with plant nursing staffs in their nutrition education program.
5. Assistance to labor unions and auxiliaries by means of illustrated talks and motion pictures on nutrition at their local meetings.

In giving illustrated talks on nutrition education, I devised a 40 x 60-in. chart entitled "Do You Eat to Meet Body Needs?" which pictures the day's meals and measures their value on the basis of the N.R.C. recommended allowances according to Taylor's method in *Food Values in Shares and Weights*. By this means I show the close relationship between the day's meals and the body's needs for health. In designing this chart I borrowed an idea used in our home nursing classes and used different colored sliding ribbons on a large cardboard thermometer to show the degree of adequacy in each nutrient met by the various foods.

We feel that the industrial nurse has excellent opportunities to promote better nutrition. Our consultant on industrial nursing, Eva Woerth, who is also associate director of nursing, explains the nutrition program in all of her visits to plants. She has promoted the organization of all the nurses in the different towns having industrial, school, visiting public health and special agency nurses, so that in group meetings they may gain a better understanding of the industrial nutrition program and coordinate their services. I have presented nutrition talks at these meetings which also offer an opportunity to become acquainted with the nurses as a step toward aiding them with their problems.

An announcement of these nutrition services was sent to all plant managers of the state Manufacturers Association by their association manager with a return request card on which the particular problem of the plant could be recorded. In reply, each plant presented a different problem. In some, assistance with menu planning and point budgeting was asked; in others, information concerning how to pack better lunches. In each case we recommended posters for bulletin boards, movies, and illustrated talks to workers. In one case talks were given during the lunch hour. In another, I met with groups of workers and their wives at evening meetings. In one small plant where the manager sponsored Red Cross nutrition courses for the wives of workers we furnished the class instructor with recipe leaflets. In another town we planned a program of movies and nutrition demonstrations for the regular monthly community meeting during the

SUBSTANTIAL BREAKFAST

An aid in combatting wartime anaemia

The March, 1944 issue of the American Journal of Digestive Diseases states: "The American custom of a cup of coffee and a cigarette for breakfast is insufficient food to begin a hard day's work. . . . The chief cause of the growing anaemia among women war workers is carelessness in the preparation and eating of food."

Today the time element in food preparation is as important a factor as nutritional value. One way to help overcome low nutrition intake is to advise a substantial whole wheat cereal breakfast that is already prepared and ready to eat.

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winter months at which the plant manager offered a prize drawing to encourage better attendance.

In one large community we planned a program to promote better nutrition with the cooperation of the Chamber of Commerce, the utilities company, and food concerns. In each case plans were made under the leadership of the county nutrition chairman. My reports of visits to plants are made directly to the manager of the Manufacturers Association. This, I feel, is important in extending the program. At the suggestion of the manager I was invited to attend an advisory board meeting of the association so that I might present the nutrition program directly to the members.

Announcement of the nutrition services was sent by the president of one of the labor organizations to leaders of various local groups. I was also invited to give an illustrated talk at their state convention. By continuing and enlarging our efforts in these approaches to the problem we hope, in time, to see a decrease in our industrial nutrition problems.

TEACHING NUTRITION AND DIETETICS IN THE ACCELERATED NURSING CURRICULUM

MILDRED LORENTZ, R.N.

Allegheny General Hospital, Pittsburgh

Since the need for acceleration of the entire nursing curriculum is great and Nutrition and Diet Therapy are important basic courses in the nursing curriculum, I shall present principles which are basic for all adaptations in nursing education, and describe the problems which many schools are encountering in modifying their programs, together with some specific applications in the field of nutrition and diet therapy.

The first responsibility of the nursing profession today is to meet the military nursing needs of the nation; our second, to care for the civilian population to the best of our ability and be prepared to meet civilian emergencies during the war period. To do this we must increase the enrollment of students in schools of nursing, key our educational programs so that students can serve most effectively while they are in training, and modify instruction and administrative procedures to enable students to complete more quickly their programs of study.

In 1942 Miss Isabel Stewart said, in connection with a National League of Nursing Education report, "Everyone knows that some expansion in nursing education is necessary to meet war needs. The main question is not whether we should expand but where to expand and how to plan so that we will get the quickest and best results with the least possible dislocation and weakening of our educational programs."

Other types of higher education have been accelerated and compressed to meet the needs of a changing world, and nursing educators early in 1942 began to make plans for modification of the nursing curriculum. With the passage of the Bolton Act in July 1943 and the establishment of the U. S. Cadet Nurse Corps, acceleration has become almost compulsory for schools participating in the federal program. Nearly all nursing schools are accelerating their programs according to the recommendation of the N. L. N. E., namely, that schools offering the 3-year curriculum complete within 30 months all organized instruction and clinical experience in at least the four major services: medicine, surgery, obstetrics, and pediatrics.

The word acceleration is difficult to define in terms of a curriculum but in our plans for schools of nursing we think of acceleration as re-evaluation, modification, and adjustment. We know that neither the military nor civilian nursing needs can be met by numbers alone. Sound preparation for present-day tasks, as well as for the challenging needs of the future, is equally important or perhaps more so now than at any previous time in the history of nursing education. The recommendations which suggest condensing the nursing school program are based on the conviction that adjustments can be made without jeopardizing sound preparation for nursing and that the suggested adjustments do not connote lowering of nursing standards. These recommendations are also based on the conviction that in this period of study, re-evaluation and innovation, changes thoughtfully considered, well planned, and carefully instituted, may mean better preparation for nursing of the future.

Acceleration and modification, however, cannot be accomplished in a haphazard manner. Just lopping off 6, 8, or 12 months does not answer the problem. No general plan for modification of the nursing curriculum can be suggested which will be suitable for all schools of nursing. Only the school's own faculty can decide where and how adjustment and modification are possible, depending upon the needs, objectives, philosophy of education, personnel, and facilities of the school in accordance with its state board regulations. As stated above, schools participating in the federal program of nursing education must be kept within the general boundaries of the accelerated program.

Each faculty should survey its own situation, using *Essentials of a Good School of Nursing* of the National League of Nursing Education as a guide. Keeping in mind the purposes and principles of acceleration, it should then decide what should be done and how the suggested changes can and should be implemented and administered most effectively and economically. The faculty plan should include those adaptations of the curriculum which will accelerate its educational program with profit both to the patient and the student.

Because of increased enrollment, most schools are facing shortages of various kinds and bottlenecks which must be removed before better education is possible. Many schools are faced not only with faculty shortages but shortage of housing, library, and clinical facilities. This means that they must make better use of existing facilities and augment them by better use of community resources. The clinical practice field especially must be studied in order to discover how it may provide adequate learning experiences for nursing students. When this has been carefully evaluated and augmented to the fullest extent, the number of students admitted must then be kept within the scope of the available clinical facilities of the school and its affiliating agencies. The clinical practice field, of course, includes the practice of dietetics for nursing students. This means that the teaching dietitians should not only be aware of the faculty plan but should participate in making it.

Several major problems immediately confront us when we consider compressing student education in the clinical experience field. Most important is that of deciding just what every student should gain in her clinical experience. Applied to the field of nutrition and dietetics, the essentiality of experience in this field must be determined by the graduate nurse's need for that experience. Because of conditions resulting from the war and those which will follow in the period of reconstruction and rehabilitation, it is necessary to study and revise our ideas of what a graduate nurse needs to know about nutrition in order to practice nursing and to teach positive health. Those who teach nutrition and diet therapy in cooperation with other members of the faculty should attempt to describe the specific experiences which they believe every graduate

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J. Marie Melgaard
Director, Dietary Department, University of Oklahoma Hospitals

Miss Melgaard's activities are many and varied; she is a member of the Executive Board of the Oklahoma Dietetic Association and last year served as chairman of an American Dietetic Association group which sponsored the publication of an equipment manual, the first of its kind.

The University Hospital and Crippled Children's Hospital are a part of a great medical center in the southwest region. The hospitals are beautifully located and provide recreation grounds for convalescent patients and for the use of the hospital staff. The hospital school for children is unique and outstanding in its field. Plans are now under way to increase the facilities at these hospitals.

Cheese-Asparagus on Toast

Make a medium white sauce using your favorite recipe. To one gallon of sauce add 3 lbs. of a nippy, grated cheese and 1 tablespoon of Worcestershire Sauce. For one serving, place 3 stalks of cooked, fresh asparagus on each of 2 triangles of Toastmaster Toast. Arrange on plate as shown and pour 3 oz. of cheese sauce over asparagus, letting sauce run down between slices of toast. Dash paprika over top. Garnish with tomatoes, mixed green salad.

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nurse should have if she is to adjust well to nursing situations. Her adjustment to new situations will depend on how well she has been prepared during her student course. It will no doubt be found that some experiences in the clinical practice field in nutrition which we have considered important in the past will be relatively unimportant compared with new needs; some clinical practice periods, such as that in the diet school or nutrition laboratory, can be shortened if quality of experience is considered rather than days of experience; some experiences in the nutrition laboratory will need to be strengthened and enriched. Therefore, one of the first things that should be decided upon in a compressed program is what constitutes essential experience in nutrition and dietetics for student nurses. Our teaching dietitians can make a valuable contribution by studying this problem and making recommendations.

Many of our accelerated programs include only 4 weeks in the diet school or nutrition laboratory. It is obvious that in this shortened practice period all nonessential experiences must be eliminated and only those which have real learning possibilities retained.

Aside from those of the nutrition laboratory, opportunities to integrate nutrition into the entire curriculum should be sought. The number of weeks spent by students in the diet therapy laboratory may be reduced if the principles of nutrition and diet therapy are emphasized and applied to every diet served in the general medical and surgical units. Also, the outpatient clinics provide excellent opportunities for this type of integration in relation to dietary problems of the family and the preparation of special diets in the home. Public health nursing experience provides another opportunity for the student to apply her knowledge of nutrition and make it a valuable part of her total nursing education. The principles of nutrition can be applied to the student's own health and her problems of underweight or overweight. Better integration of the knowledge of nutrition can also be provided for in clinical or bedside teaching programs if the teaching dietitian enlists the help of the clinical instructor in discussing patients who have dietary problems. The dietitian may help plan symposia in which dietary problems affecting the entire medical and nursing situation of the patient are discussed. In other words, if the whole experience of the student is enriched by applying the principles of nutrition in all of her nursing care, she will acquire not only better and more functional knowledge of nutrition, but she will acquire this in a much shorter time.

A second problem in relation to the clinical practice field which should receive consideration is: How can we judge when a student has satisfactorily completed those experiences which will prepare her to give good nursing care? Quality of experience cannot be estimated without cumulative records and objective tests which will measure achievement in each area of clinical nursing. Satisfactory cumulative records would eliminate unnecessary repetition and prevent gaps in experience, and make it possible for more students to utilize one learning situation. These records and tests are just as important in the nutrition practice period as in any other clinical practice period. Teaching dietitians could assist the faculties of schools materially by originating and experimenting with new types of cumulative records and objective tests to measure achievement in this special practice area.

The formal teaching which precedes or is parallel to the practice period in nutrition must be re-evaluated in terms of better correlation, reorganization, and re-allocation of subject matter, so that all possible duplication can be avoided. To this end, the teaching dietitian should be familiar with the entire nursing curriculum and with the content of other courses. She should study her own courses to determine how the subject matter can be modified to meet existing needs. Many instructors in dietetics or in nursing and medicine have almost automatically repeated courses, keeping the content much the same as when the course was first planned. For this reason the present study of content is especially valuable. Now changes must be made and as instructors in more schools of nursing re-evaluate the content of courses better methods of education, we believe, will result.

In many courses, after careful study it may be possible and desirable to reduce the number of hours. Total reduction of hours of formal teaching is sometimes possible with less loss of value when courses are combined and integrated. Such a combination might be Nutrition and Diet Therapy, taught as one course. In re-evaluating our theoretical courses we must think of the subject matter of each course as it relates to the total curriculum, instead of as a separate unit. We should think of them as parts which must be closely interwoven if an integrated educational experience is our purpose.

Methods of teaching should be selected which are most effective and economical of classroom and study time. Many of our teaching methods are antiquated and have not been considered from this standpoint. It seems appropriate, therefore, that each instructor study not only her teaching methods, but her examinations and system of grading to determine whether or not these are the most effective possible.

After each instructor has studied her courses and made suggestions for modifications and adaptations, an over-all study by the entire faculty should follow. In comparing course outlines and course content many duplications or omissions may be discovered. The classical example of duplication, that of teaching the chemistry of digestion in Anatomy and Physiology, Chemistry, Nursing Arts, and in Nutrition courses, will not be the only one found. Omissions will be less likely if the faculty studies the curriculum as a whole in the light of integrated and more economical teaching.

The criteria which apply to the peacetime curriculum are equally applicable to that modified to meet wartime needs. In Bulletin #3, *Nursing Education in Wartime*, published by the National League of Nursing Education, the following criteria for an accelerated program were listed:

1. It should be planned on a level suited to the capacity of the students.
2. It should be well balanced, with the student load so distributed as to avoid periods of excessive strain and long periods without classes.
3. It should possess unity and continuity to help the student progress easily from one area of experience and study to another.
4. It should consider the student's health needs as well as her learning needs.
5. It should provide opportunity for growth in citizenship and a plan for guidance in all areas—educational, personal, and vocational.
6. It should furnish the instruction and experience necessary to enable the student upon graduation to meet the health and sickness demands of the community and to prepare her for state registration.

Criteria 1, 3, and 6 above seem particularly applicable to the program of nutrition and diet therapy in the accelerated curriculum, and therefore worthy of consideration by those now planning courses.

If we can think of an accelerated program merely as a modification of methods of instruction and administrative procedures, designed to enable students to complete their program more quickly, and not as something which will unavoidably lower standards, the task with which we are

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faced becomes a stimulating challenge rather than a burdensome assignment. If we can use intellect instead of emotion in approaching our problems of acceleration and expansion, if we all work cooperatively on the problems of the curriculum, and if we can develop the philosophy of treating all disasters as incidents and none of the incidents as disasters, we can and will emerge with a better curriculum—one which will furnish the knowledge and experience necessary to enable the student upon graduation to meet the health and sickness demands of the community.

TEACHING NUTRITION TO STUDENT NURSES

MAE WHITMER

Cook County Hospital, Chicago

The war has made everyone, including the student nurse, acutely aware of food. As a result, a change in approach and emphasis in the teaching of nutrition has been necessary. In the past we had to awaken the interest of the student nurse in nutrition. Today she enters the classroom alert to the importance of food and its effect on health and efficiency. This situation should serve as an incentive to better teaching, even though the great increase in the student nurse group, plus the many added duties of the dietary department, at times makes the problem seem a high, craggy mountain with no visible overpass.

In the field of teaching it is foolish to assume the role of even a minor dictator. Plans are always complicated not only by the prerequisites and limited allotment of time, but also by the background and interests of each student group. Thus the instructor will need to vary the method of presentation, and to some extent the course content, to meet the individual requirements of each class. I shall not attempt to suggest an ideal course; instead, I shall outline briefly the courses as they are taught at the Cook County Hospital School of Nursing and submit two teaching aids which have been helpful.

The first contact with each new group of student nurses comes during the first term, although there is no formal teaching in nutrition until the second quarter. In the health program each student nurse, upon entrance to the school, is given a complete physical (including orthopedic) examination. The physical education instructor, in cooperation with the health department, takes a posturegraph of each student in order to determine postural defects which may be corrected in the interest of personal appearance and better health. This instructor also determines, from skeletal measurements, the optimal weight for each student nurse which is referred to throughout the training period.

Now comes the dietary department's part in this program. Each student whose weight deviates more than 10 per cent from the optimum, or whose weight trend continues in the wrong direction as indicated by monthly weight reports, or who requires any special diet, is referred by the physician to the instructor in Food and Nutrition. The student's dietary habits and the adjustments necessary to meet the dietary prescription in the most acceptable manner are discussed with the dietitian. In estimating the calories, the adequacy of the diet is also carefully checked so that this conference leads not only to adjustment of caloric intake but often to improvement in dietary habits. A graph showing weight each week, so that the record of attainment may be an incentive to each student, is kept on file as a part of the permanent health record. This first contact with the student nurse and the results obtained serve as a favorable introduction to the subject of nutrition, not only for each student under dietary management but also for those of her classmates who observe the improvement. Since the student is just entering her training period, when she is perhaps most impressionable, this procedure helps to create a close relationship between instructor and student throughout the following two terms of formal classroom work.

The formal teaching program includes three classes in the field of Nutrition and Dietetics given in the following sequence: Food, Nutrition, and Cookery; Diet in Disease; and Infant and Child Nutrition. The first group is taught during the second quarter, following the prerequisites, Chemistry, and Anatomy and Physiology, which provide the necessary background and afford excellent correlation. Food, Nutrition, and Cookery is an 84-hour course consisting of 3 hours' lecture and 4 hours' laboratory during each of 12 weeks. The content follows quite closely that suggested by the National League of Nursing Education in the *Curriculum Guide.*

The early contact with the student nurse mentioned previously offers an introduction to this course and assists in motivating a second plan which has been found of value as a teaching aid. Knowing that most people respond more readily to that which relates directly to themselves, an attempt is made to personalize the subject as "my diet." The objective, "What do I need for an adequate daily diet and how can I get it?" serves as a term project. As the study of each constituent of an adequate diet proceeds, each student adapts the data to her particular need. The variation of these needs within the student group serves to emphasize factors which may vary the nutritional requirements of adults in general. As an example of this procedure, when the protein requirement is discussed, each student determines the amount or kind of food she must consume daily in order to ensure an adequate protein intake. To assist in visualization each student records this information in color on a graph and continues in the same manner with the other dietary constituents as each is studied. Thus she learns not only what foods to eat daily but why she should eat them, all of which is readily adaptable later in the course in Diet Therapy.

The student nurse is now ready to apply this knowledge in a critical analysis of her own dietary. For a week she checks her food intake to see if it provides sufficient amounts of the protective foods. If not, she submits to the instructor certain practical suggestions toward improving her diet. After the instructor has checked these, a short conference with the student affords excellent opportunity for further corrections, many of which are offered by the student.

Student dietitians act as assistants and do their practice teaching in this course, which fosters an understanding and cooperative spirit between the dietetic and nursing departments. Most of the student dietitians enjoy this teaching experience and offer many pertinent suggestions as to content and methods of teaching this course which must serve as a sound foundation for the study of dietary modifications in the therapy of disease.

Diet in Disease, given in the third term directly following the course in Normal Nutrition, is correlated with Pathology and the doctors' and nurses' lectures in Medical Nursing. The class work is planned in such a way that the first lecture each week is on the pathology of a disease, followed by the doctor's lecture on medical aspects of the same disease, the nurse's lecture on nursing care, and finally the dietitian's on diet therapy. Most of the students, having had such a well-rounded background, plus a sound knowledge of normal nutrition, are able to determine a logical solution with regard to the type of diet best suited to the patient and the adjustments necessary in the

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normal diet. Thus reasoning, to some extent, can replace learning by rote. To facilitate further the correlation in the learning process, the student during this term is assigned 5 weeks' cooperative practice in the dietary department where she has ample opportunity for observation and practice in a wide variety of situations. Here, too, the student is impressed with the importance of well-balanced diets and good nutrition as factors in the patient's recovery. In all contacts with the patient, but particularly in this assignment, the student nurse should be a valuable asset to the Dietary Department in the teaching of nutrition to patients. Instructors often feel that 12 hours of formal classroom teaching in this subject is rather limited. But it may be sufficient if repetition is eliminated by good correlation of subject matter, plus a well-timed cooperative practice schedule.

The course in Infant and Child Nutrition is a 9-hour course concurrent with Pediatrics in the second quarter of the third year, or the tenth term. While the intervening period of one and one half years since the last class in Nutrition does offer some difficulties, such as the necessity for more review, this handicap is somewhat offset by the fact that the student at this point is more mature. During this term the nutrition teaching is correlated with the doctor's lectures in principles of pediatrics, the nurse's in pediatric nursing, and the child psychologist's in behavior development of the child, thus again eliminating need for repetition. Cooperative practice in this term includes experience in the milk laboratory and the children's diet kitchen, and covers the preparation of infant formulas and supplementary feedings, and the feeding of older children. Placing this course near the end of their training offers the students an opportunity for a review of nutrition at an opportune time, in view of imminent state board examinations.

To summarize, the aim of the school of nursing has been to plan the entire curriculum so as to secure the best correlation of all subject matter and to present this material in a sequence conducive to maximum understanding and retention. There are, of course, some problems remaining which may hobble even the most astutely conceived plans. Two examples come to mind—first, a very common one, the lack of proficiency in simple mathematics on the part of student nurses which makes it difficult for them to comprehend food composition. That the Army and Navy have recognized this same defect and are attempting correction offers hope in the solution of this problem.

Another problem is the increase in the teaching load as a result of the increased student enrollment. Most noticeable increase is in the time required for personal conferences and correction of assignments. However, if the time devoted to these conferences were decreased or the practice discontinued, many valuable teaching opportunities would be lost and some erroneous ideas undoubtedly would remain uncorrected. If, then, our aim is more effective teaching, it is important that there be an adequate teaching staff in order that the practices and techniques we have developed to this end will not have to be discontinued.

USE OF THE WARDS IN A TEACHING PROGRAM FOR STUDENT NURSES

HELEN BAUGHMAN

Ward Dietitian, Johns Hopkins Hospital, Baltimore

Do your student nurses help or hinder the work of your dietary department? We may be inclined to view the practical training of the diet nurse as an additional duty which yields small return, or the converse may be true, in which case the diet nurse may be exploited because of a help shortage. I would like to present this problem from the point of view of a ward dietitian in charge of patients' tray service, both regular and special diets, who also has the responsibility of training a large group of student dietitians.

Since training, after all, is the primary concern, it is necessary to consider the requisites of the graduate nurse in order to determine her dietary training. As a special nurse or floor nurse she must be able to handle simple food preparation, to set up a tray properly, and to judge the food needs of her patients. As an executive nurse she may be called upon to organize tray service. In any type of nursing, and especially in the public health field, she must have mastered the fundamentals of nutrition and acquired some facility in teaching the essential facts. The purpose of the clinical instruction and practice in dietetics is to coordinate theoretical study with practical experience.

As a basis for discussion I shall describe the present training program at the Johns Hopkins Hospital and its development, since it may be considered fairly typical of a large training center and the principles therefore applicable to any institution of similar size.

As a background for the 4-week clinical training in dietetics, the nurse has a 30-hour course in Normal Nutrition and Diet in Disease, also an Elementary Cookery course of 25 hours. This schedule meets all state requirements and fits into an accelerated 2½-year student program. The diet nurse has either finished her course in medicine or is taking it concurrently. She is at the end of her first year's training or the beginning of her second, and has had from 6 to 8 months' ward experience.

Several considerations motivated a change in the concentration of the nurse's dietetic training from the diet kitchen to the wards. Chief among these was the plea of those in charge of nursing education that the student be taught to consider the patient as a whole. On careful analysis it was decided that the nurse could more appropriately assist in the actual tray service and planning unit rather than in the preparation center. In addition, because of the number of nurses assigned to us, it was impossible to train them in any one unit. This situation was sufficiently pressing to make us seek another solution.

It was self-evident that student diet nurses could only be trained on wards where full control of tray service was in the hands of ward dietitians and in which the full cooperation of these dietitians was possible. Another question arose: Since we were also training student dietitians on the wards, could we interrelate these two courses so that neither would encroach upon the other and both student dietitian and student nurse might benefit by working together? I am happy to say that the student dietitian training did improve under this system. The diet nurse is assigned to a ward where she works directly under the student dietitian responsible for tray service. They work as a team and though the dietitian is expected to help teach the nurse there is much interchange of information and they learn to know and understand each other's viewpoint. The student dietitian gains much valuable experience in helping to instruct the nurse and evaluating her work.

For the inspiration and basic plan of our present method of clinical instruction we are indebted to Hendericka Rynbergen of the New York Hospital, who was kind enough to explain her system and guide us in establishing our own. We now have two full-time clinical instructors, dietitians attached to the staff of the Nursing Department. They supervise groups of 16 student nurses, assigned to the service every 4 weeks.

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to her dietary training, the nurse is introduced to the routine of the Dietary Department. This class has proved of considerable aid in handling large numbers of new diet nurses.

The clinical course in Dietetics is designed to give the nurse training in both public and private ward tray service. She is taught to correlate the medical, dietary and nursing care of individual patients. Emphasis is placed on the relationship between the normal diet and its modifications in the treatment of disease. All types of diets are prepared and served under the direction of the dietitian. The student is encouraged to discuss with her patients the simple rules of good nutrition. To do this successfully she must first become convinced of the value of an adequate well-planned diet for herself and her patients. Class instruction therefore stresses the relationship between a normal diet and the maintenance of good health. Case studies or other studies by the students offer an opportunity for interesting group discussions on nutrition topics. Problems from clinical experience are taken up as they arise.

Description of a typical day in the life of a student diet nurse may show the integral part she plays in our ward set-up. It includes:

1. Reading the doctor's order book for diet and fluid changes insulin orders, and test orders.
2. Service of deferred trays, including all diabetic trays.
3. Administration of insulin and the instruction of patients in this procedure.
4. Rounds with doctors, head nurse, dietitians, and the clinical supervisor (once a week). All patients are visited. Problems are discussed.
5. Planning and service of nourishments.
6. Class from 10 to 11 a.m. (4 times a week) directed by clinical instructor.
7. Service of trays (noon and evening). On some wards this means all trays; on others, selected special diets.
8. Appetite chart. Visiting all patients after noon and evening meals and recording general comments on food eaten and refused.
9. Food intake records. In certain instances keeping accurate account of all food eaten by a certain patient.
10. Recording of fluids taken at meals.
11. Medical-social conference. Once during the 4-week period the diet nurse takes part in a conference attended by the social worker, doctor, medical student, dietitian, floor nurses and clinical supervisor regarding one patient.

By means of this schedule we believe we have trained the nurse not only in Nutrition, Diet Therapy, and the proper arrangement of a tray, but also in organization and the handling of employees, since the diet nurse is also familiar with the maid's routine and can aid in her supervision.

In evaluating this method of training the diet nurse from the point of view of the Nursing Department, the increased interest and better preparation of the student have been apparent. From the point of view of the ward dietitian, the plan seems even more successful, for it goes beyond the satisfactory training of the student to the possibility of more individualized patient care and better interdepartmental cooperation.

It cannot be said that all of our student nurses like this part of their training. Many enter upon it with unfavorable prejudice. However, we realize that good personal contact is the most important single factor toward increasing the interest of the diet nurse.

It is true that at Johns Hopkins Hospital we have a class of 428 nurses and 61 affiliates, all of whom must have clinical experience in Dietetics, but I believe the principle of training the diet nurse on the ward will apply in hospitals large or small, provided the dietitian is cognizant of progressive methods of teaching. The time and effort spent in developing and carrying out this plan for diet nurses are amply repaid by the increased ability of the student in helping maintain a more efficient dietary service.

The assistance of Katherine Nelson and Lt. Florence Hack, graduate nurses with dietetic experience, and that of Lt. Mary H. Eaton, head dietitian, formerly clinical instructor, are acknowledged in the development of this system; also that of Helen McSweeney, dietitian, now in charge of the work.

DIETITIAN'S AIDES

MARY M. HARRINGTON

Director of Dietetics, Harper Hospital, Detroit, and Co-chairman of Nutrition, American Red Cross, Detroit Chapter

The first Dietitian's Aide class trained at Harper Hospital was graduated in October 1943. The outline of the course used was that planned by the joint committee of the American Red Cross and the American Dietetic Association. The duties planned for these volunteer workers were summarized as follows:

The Dietitian's Aide is authorized to perform only those duties which are under the supervision of the dietitian, and subject to the approval of the hospital administration. She may not participate in any commercial service units connected with the hospital, such as a cafeteria or dining room. The range of her duties includes the following:

Management and Records

1. Write special diets under supervision.
2. Summarize food orders.
3. Check food and supplies in and out of units.
4. Write names of patients on diet or tray cards and menus.
5. Label formula bottles, wash bottles, and prepare same for sterilization.
6. Make out orders, records, and reports as required.
7. Take inventories of food, supplies, and equipment.
8. Check on orderliness and cleanliness of service and preparation units.
9. Answer telephone, deliver messages, and perform other errands.
10. Assist in the collection of materials for patients' classes and the setting-up of exhibits; assist with the demonstrations.

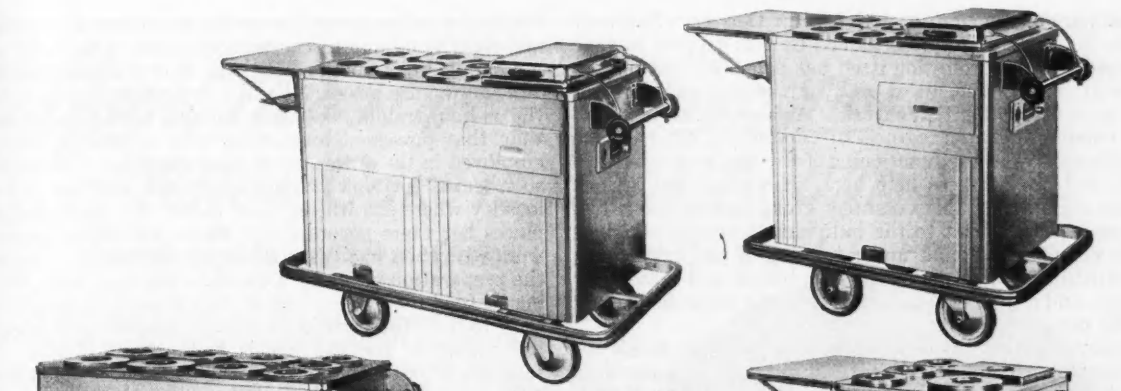
Food Service to Patients on Special Diets

1. Pour and serve nourishments.
2. Set up trays—check dish and silver arrangement, card, and menu.
3. Check food received on food trucks.
4. Weigh food for special diets.
5. Check trays with patients' menus.
6. Carry trays to patients.
7. Return trays to pantry and check and record waste of specified items.

Emergency Duties

1. Make coffee.
2. Prepare eggs and toast.
3. Prepare nourishments and special feedings.
4. Prepare foods for special diets.
5. Prepare vegetables and fruits.
6. Make salads.
7. Make desserts.
8. Prepare cold foods for service and place on trays.
9. Serve hot foods on trays.
10. Strip trays, stack dishes, and run through dishwasher.
11. Check foods in and supplies to dining room.
12. Prepare cold foods for service and arrange on counter: desserts, cream, fruit juices, milk, bread, butter, and salads.
13. Turn on steam and arrange foods on hot counter.
14. Put out proper serving utensils.
15. Serve on counter during meal.
16. Put away materials and assist with the cleaning of counter and equipment.

From October 1943 until March 1, 1944, 2942 volunteer hours have been contributed to assist busy dietitians in Detroit hospitals. This Red Cross service is now a recog-



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nized part of the chapter activities in Detroit. Not only have dietitians in hospitals gained by this support in time of need but the profession itself has benefited inestimably through wider recognition and appreciation of the importance of the dietitian's work. As a result, members of the community have learned to understand the part the dietitian plays in the functioning of the well-organized hospital and are eager to help her. The preparatory work of the members of this volunteer group accomplishes two purposes which react to the individual's benefit: It gives each volunteer a sound understanding of the importance of nutrition in maintaining her own health and that of her family, and a better understanding of the scientific feeding of the patient.

Every dietitian has experienced the feeling of blank bewilderment when asked, What is a dietitian? What does she do? No longer is the dietitian's explanation met with the somewhat disinterested observation, "It must be interesting work." Today, keen, intelligent women are willing to contribute some of their spare time to help the dietitian in this essential work. Imagine the pride of every dietitian on seeing 40 outstanding women of this community march across the stage in their smart, trim, commando blue uniforms at a recent graduation exercise to receive certificates as Dietitian's Aides, along with Nurse's Aides, Gray Ladies, members of the Motor Corps, and other Red Cross volunteers.

The Dietitian's Aides have made a place for themselves and have gained recognition not only from the professional field but from the community. Newspapers are anxious to give them publicity, and their smart uniforms, with the sleeve insigne, "Dietitian Aide," were featured along with those of Nurse's Aides on mannequins in windows of several leading stores during the month of the Red Cross Fund campaign.

The lecture work for the preliminary course of 20 hours of Nutrition is contributed by volunteer teachers, most of whom are members of the American Dietetic Association holding responsible positions. The Dietitian's Aide course is taught by a dietitian employed by the Red Cross, while the practical work is directed partly by professionally inactive dietitians who were recruited to give some volunteer time, often only one half day per week, to the hospitals in this capacity. These dietitian volunteers continue to supervise and assist the Aides in the various hospitals and form part of the Red Cross Dietitian's Aide committee under its lay chairman.

The Detroit Dietetic Association has been most helpful in sponsoring this development through its War Effort Committee, and has worked closely with the Wayne County Nutrition Committee. The need for volunteers, including those in the hospital, and a full understanding of the volunteers' viewpoint had to be thoroughly grasped by all professional groups, including the hospital administrators.

Women who are sufficiently patriotic to leave their homes and struggle through the traffic congestion to serve the hospital want to be kept busy. Their only reward is the word of appreciation for a job well done. In happier days, dietitians, as administrators, were accustomed to outlining routines for employees and seeing that these routines were followed, and were interested in obtaining a stable organization of workers who would report for duty regularly. That dream was discarded long ago. A person sufficiently alert to take a telephone order accurately, have it filled correctly and then write the tray cards, came to be most essential and this responsibility was one of the first duties assigned to the Aides. At present, the Aides arrange to be in the kitchens during the period when the dietitians are either seeing patients, teaching, or off duty. Service to patients can be carried on efficiently by them, and should any unforeseen problems arise which they cannot handle, they call the dietitian. It is to be expected that women who are interested and persevering enough to take the 60-hour training will have a higher level of intelligence than that possessed by persons who ordinarily would be employed in the duties which they assume. The dietitian soon learns to know the volunteer, her abilities, and the locality where she will be most useful and contented, and places her there accordingly. Some volunteers prefer to work with their hands and assist in the formula room or in the preparation of food. Others do the desk work, weighing of food, carrying weighed diet trays to patients, and even feeding these patients. Some prepare and assemble the materials for the Foods Laboratory classes. The schedule of duties planned by the dietitian is given to the Aide and she is able to carry on quickly after she has become oriented in the unit, where her activities in no way conflict with those of the student dietitian.

The dietitians and student dietitians deeply appreciate the assistance of these women. The employees, of course, had to be fully informed as to the place of the Aides in the hospital scheme. The Aides, in turn, were given a brief lecture on ethics as a part of their preparatory course, and in our experience no problem in this connection has been encountered. At all times the Aides are dignified, courteous, and extremely conscientious.

Our experiences support the reports published in this JOURNAL for December 1943. Some hospitals have said that they did not need people to assist the dietitian, what they needed were people who would wash the dishes. We have held to the belief that if there is a bottleneck in the dishwashing area, the dietitian might well relinquish some of her detail work to the Aides so that she could give more time to the training and supervision of employees, including dishwashers, and for other essential planning in the interest of greater efficiency.

Since there is a need for more dietitians and more students in college home economics courses, the training of Dietitian's Aides offers a means of acquainting the mothers of prospective students with our field. These homemakers, teachers, stenographers, and executives who have volunteered as Aides have accomplished much. They are interested in their own nutrition and that of their families. They are interested in hospitals and really feel that it is a special distinction to be a Dietitian's Aide. They have made a real place for themselves and helped to bring recognition to the dietitian's profession. We appreciate their assistance and are indebted to them for their wholehearted contributions.

APPOINTMENTS AND PROMOTIONS, ARMY MEDICAL DEPARTMENT DIETITIANS

The following dietitians were appointed to the Army Medical Department in May:

Abel, Margery: Montana State Univ.; Harper Hosp.
Anderson, Helene Muriel: Univ. of Minnesota; Univ. of Minnesota Hosp.
Ashford, Olive Irene: Univ. of New Hampshire; Massachusetts G. H.
Bass, Anne Louise: Hunter Col.; Montefiore Hosp., N. Y.
Blaylock, Margaret May: Kansas State Col.; Seattle Course for Dietitians.
Bliss, Mary Jane: Madison Col., Va.; Western Pennsylvania Hosp.
Brewer, Dorothy Jane: Montana State Col.; Seattle Course for Dietitians.
Bruechert, Adelaide Kathryn: Iowa State Col.; Univ. of Texas Admin. Course.
Carlson, Frances Jane: Iowa State Col.; Univ. of Maryland Hosp.
Castner, Betty Kathryn: Carnegie Inst. of Tech.
Chapin, Hazel Ruth: Massachusetts State Col.

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Coltrin, Virginia Lee: Pennsylvania State Col.; Harper Hosp.
Dickinson, Elizabeth Hazel: Ohio Univ.; Colorado G. H.
Ewing, Nancy Jane: Iowa State Col.; Cook County Hosp.
Flynn, Ruth Mercedes: Notre Dame Col., Ohio; Ancker Hosp.
Frei, Helen Lucille: Iowa State Col.; Watts Hosp., Durham, N. C.
Frei, Pauline Elizabeth: Univ. of Idaho; Univ. of Texas Admin. Course.
Goecker, Marie Antoinette: Baldwin-Wallace Col., Ohio.
Goldberger, Beatrice: Teachers Col., Columbia Univ.
Goldstone, Edith: Univ. of Minnesota; S. H., Cp. Grant, Ill.
Hanley, Betty Ann: Montana State Col.; Cook County Hosp.
Hebert, Mary Louise: St. Mary Col., Leavenworth, Kan.; Ancker Hosp.
Hinton, Mary Ellen: Mississippi State Col. for Women; Miami Valley Hosp. and O'Reilly G. H., Springfield, Mo.
Hotaling, Norma June: Cornell Univ.; Harper Hosp.
Idtse, Betty Ruth; Univ. of Wisconsin; Seattle Course for Dietitians.
Jacobson, Loretta Alta: Univ. of Minnesota; Univ. of Minnesota Hosp.
Lanier, Ruth Cheshire: Georgia State Col. for Women.
McElreath, Mildred Frances: Georgia State Col.; Watts Hosp., Durham, N. C.
McFadden, Alice Winifred: St. Lawrence Univ., Canton, N. Y.
McPheeters, Elizabeth Grace: San Jose State Col.; Hammond G. H., Modesto, Calif.
Meggers, Ann Mitchell: Univ. of North Dakota; Cook County Hosp.
Miller, Helen Pancoast: Pennsylvania State Col.; Univ. of Washington Admin. Course.
Richards, Georgia Belle: Texas State Col. for Women.
Sadacca, Roslyn: New York Univ.; Jewish Hosp., Brooklyn.
Sircom, Elizabeth Blanche: Hood Col., Frederick, Md.; Johns Hopkins Hosp. and Halloran G. H., S. I., N. Y.
Skellchock, Julia Valentine: Pennsylvania State Col.; New York Hosp.
Smith, Herma: Texas State Col. for Women; Florida State Col. for Women Admin. Course.
Swecker, Celia Pearl: Madison Col., Harrisonburg, Va.; Johns Hopkins Hosp.
Taylor, Frances Perkins: Univ. of New Hampshire.
Tolman, Marion Esther: Massachusetts State Col.; Henry Ford Hosp.

The following promotions for May were announced:

Second Lieutenants to First Lieutenants

Louise L. Alford, R-747
Mary Margaret Barnes, R-228
Hazel W. Bolton, R-401
Grace Margaret Brennan, R-945
Alene Catherine Faltesek, R-193
Jeanne Hunter Hexamer, R-505
Alta Brown Johnson, R-197
Betty Marie Ketcham, R-574
Marie E. Knickrehm, R-510
Florence H. Lutz, R-653
Ruth A. Nesler, R-200
Martha Jane Pabst, R-900
Ida Perlmutter, R-283
Helen Dorothea Prusak, R-428
Beatrice R. Rubin, R-225
Pauline Rebeck Schneider, R-371
Gertrude Marie Speck, R-368
Eleanor Waldman, R-119

Viewpoint of the Dietitian's Aide. After the Dietitian's Aides at Union Memorial Hospital, Baltimore, have completed their training, Alice E. Jané, director of dietetics, asks them to write a short paper on what they have gained by taking the course. The following are excerpts from reports made by members of two evening classes.

"Chiefly it has given me a sense of helping with the war effort and a satisfaction in helping the sick. I also feel that the services I am rendering at the hospital will have practical value for me such as teaching me how to take care of members of my family in case of sickness, how to prepare healthful and economical meals, and general efficiency in the home."

"Among the things that I have learned are: how far in advance menus must be planned, but with elasticity enough for emergency changes in menus and work schedules. Also, how versatile a hospital dietitian must be. She must not only have a great knowledge of food, its values, preservation, and preparation, but she must be a personnel manager, an economist, and a psychologist."

"My training at the hospital to date has taught me the proper method of handling food and an acute sense of cleanliness and sanitation. It has brought to my attention the necessity of explicitness in filling diet lists. I know that it takes years of training as well as much care and thought in order that meals may be on time without apparent effort and the diet of each patient given proper attention. My previous course in nutrition was a stepping-stone to the application of theory to practice."

"When I volunteered as a Dietitian's Aide, it was because I felt it was the patriotic thing to do. Now I feel that I have gained more than I can ever give. It is hard to explain the feeling of satisfaction one gets in doing something for helpless people. I experienced that when I fed a patient, persuading her to eat what was on her tray and knowing that she enjoyed it. Nothing tha I ever did before gave me even a small portion of the satisfaction and pleasure I felt in knowing that I had been able to help those who are unable to help themselves."

"I have enjoyed my work. Also, everyone with whom I have come in contact has been very willing to help me and overlooked my inexperience and slowness in doing my work."

"None of the actual work—cleaning chickens, washing berries, doing dishes, preparing liquid, soft, semi-soft and solid diets, fixing trays, feeding patients—was new to me, only the method—no untidiness, no cleaning up for hours after the meal had been served. There was less untidiness in the hospital kitchen after dinner had been prepared for 150 people than in my kitchen when I had finished dinner for 6."

"After learning about hospital food buying, a difficult problem in these war days, about preparation and serving, about various diets for various illnesses, we put on our blue seersucker uniforms with the Red Cross on the pocket and went into the departments of the Union Memorial Hospital and actually began helping in this preparation and serving! What a thrill to be helping at last! To set up trays for the next meal, apportion food, check the menu in the main kitchen for the next day with the dietitian in charge; to load the carts for the different floors, in the main kitchen, being sure the correct list goes with the right containers and all together for the same floor; to work in the diet kitchens and carry trays to patients (one of the most satisfying duties); and to go with the dietitian to hear the comments on the meal and write up these comments, to put names and room numbers on diet sheets, make salads, fix orange juice; along with all the many exciting things we do in the cafeteria where the largest quantities of food are handled. All these duties add up to the most completely satisfying work, so much so that with regret we leave when the time is up."

NAPOLEON, in 1810, uttered the well-known cliche: "An army marches on its stomach"—and then two years later, forgetting all about it, stretched his supply lines 1500 miles into Russia to meet a terrible defeat.

In this war, we know that one of our most important fighting weapons is the mess kitchen, rolling kitchen and galley and we know with pride that we have the best fed army in the world.

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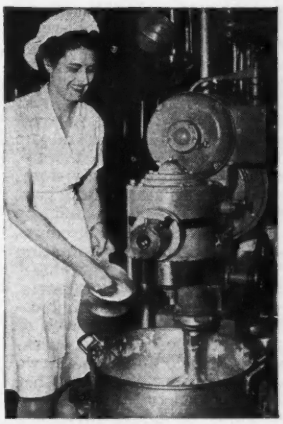
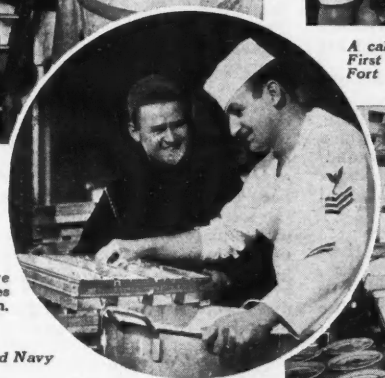


A cake in the making at the First WAC Training Center, Fort Des Moines, Iowa.

Peeling potatoes at Chanute Field now requires two men, instead of a former dozen!



Batteries of Hobart Mixers prepare huge quantities of bread and pastries at Great Lakes Naval Training Station.

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Book Reviews

Care of Food Service Equipment. Prepared by a Committee of the Administration Section, American Dietetic Association, J. Marie Melgaard, Chairman. Minneapolis: Burgess Publishing Company. Paper, 8½ x 11 inches, Photo Offset, Circle-bound. Pp. 86. Price $1.50.

This book on the care of food service equipment was developed during 1942–43. The committee's purpose was to provide dietitians and food service managers with practical and usable information on the care of equipment, so that employees might be properly instructed. In addition, the form of the manual is such that it can be used as a ready reference and permanent record of the purchase and maintenance of equipment in the food service department.

That the committee has succeeded in its purpose a mere glance at the manual will confirm. The great mass of detailed information has been so well organized and so clearly and attractively arranged that it is possible to find the desired information about any item of equipment without difficulty. Briefly, this has been accomplished by means of the following devices: The introductory chapters on "What a Dietitian Needs to Know About Food Service Equipment" and "Cleaning Equipment" are presented in outline form, thus reducing verbiage and making the information quickly accessible, and so conveniently arranged that it can easily be used as teaching material without further preparation. The second chapter includes a sample maintenance schedule which gives a suggested daily work plan; daily cleaning procedures, listed according to items of equipment; and schedule of special duties, listed under the days of the week. Following this general material, the balance of the manual consists of data on separate sheets concerning each item of equipment, grouped as follows: electrical kitchen equipment, gas kitchen equipment, steam kitchen equipment, refrigeration, china, glassware, and silverware. A sheet of general information precedes each of these divisions, and a blank page is inserted between each separate equipment sheet on which can be pasted the manufacturer's sketch, and any additional information noted. The sheets for the items of equipment provide spaces for the insertion of all necessary information about the item when purchased, including date of purchase, guarantee, period of free service, integral and accessory parts, etc., as well as a form on which to record date and cost of replacements and repairs, for permanent reference. On the reverse of each sheet the necessary detailed information concerning operation and care is arranged in numbered sequence under these two headings, and a list of precautionary measures under another heading, "Caution." Ample space is provided for recording replacements of china, glass, and silverware. A sample inventory form and a sample check sheet for cleaning maintenance are included in the manual.

Care of equipment is especially important in wartime when the equipment itself, as well as food and labor, must be conserved, and this manual unquestionably fills the need for up-to-date, accurate, pertinent information, easily accessible. As to the form in which it is presented, it is the opinion of this reviewer that it is outstanding as an example of organization and condensation which might well be emulated by others attempting to present similar material for publication.

The American Illustrated Medical Dictionary. Twentieth edition. By W. A. Newman Dorland, A.M., M.D., F.A.C.S., Lieutenant Colonel, M.R.C., U. S. Army, Member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association. Philadelphia and London: W. B. Saunders Company, 1944. Flexible or stiff binding. Pp. 1668. Plain $7.00. Thumb-indexed $7.50.

The new edition of this dictionary represents a complete revision of that published in 1941, and includes additions especially in the fields of biochemistry, chemotherapy, allergy, specific therapy, endocrinology, vitamin research, tropical and parasitic diseases, mycology; also the vast array of new synthetic drugs and medical preparations. Special attention has been devoted to the vocabulary of war medicine and surgery. The terminology has been made to conform with that of *Standard Nomenclature of Diseases and Operations*, published by the A. M. A.

The twentieth edition maintains the general excellence of previous editions. We note that several additional special diets are described or defined under the entry, *diet*.

From the viewpoint of the dietitian, it is regrettable that no change has been made in the narrowly restrictive definition of a dietitian as "one who is skilled in the scientific use of diet in disease." This term is derived from the Greek root word, *diaita* (manner of living) which is translated into English as *diet*, and defined in the book under review as "the customary allowance of food and drink taken by *any* [italics ours] person from day to day." Nevertheless, a dietitian is defined as one concerned solely with diet in disease, all of which presents a nice poser in etymology and helps to perpetuate the hoary misconception concerning the dietitian—what she is and does. In contrast to this, the second edition of Webster's *New International Dictionary*, unabridged, defines dietitian as "one who is versed in, or practices any branch of, dietetics," a word which in turn is defined as "the science and art dealing with the application of principles of nutrition to the feeding of individuals or groups under different economic or health conditions."

As a standard reference the book is indispensable for any training school or college library used by prospective dietitians. In fact, it should be included in any well-equipped office of a dietary department.

The physical makeup of the book is worthy of mention. The type, though small, is clear and easy to read, and the flexible binding and paper are exceptionally durable as attested by the condition of the copy of the previous edition which has been in constant use in the JOURNAL office.

Rose's Foundations of Nutrition. Fourth edition. Revised by Grace MacLeod, Ph.D., and Clara Mae Taylor, Ph.D. New York: The Macmillan Company, 1944. Cloth. Pp. 594. Price $3.75.

The fourth edition of this well-known book is such an excellent work that it is difficult to review it adequately within a few short paragraphs. Professor MacLeod and Dr. Taylor, to whom Mrs. Rose expressed appreciation for assistance in preparing the third edition, were quite properly chosen to make this first revision of the book since Mrs. Rose's death. To say that the task was a difficult one would be an understatement, and to state, now that it has been accomplished, that the result is worthy of the original author and would undoubtedly have elicited her praise, is perhaps all that is necessary here in the way of a critical review.

Some of the changes made in the new edition had been mentioned by Mrs. Rose in planning the revision which she had hoped to make, and all of them are based on teaching experience with previous editions. The additions were largely necessitated by additions to scientific knowledge as a result of recent research. As before, the book is intended to present the fundamentals of nutrition to those who have had no highly specialized training in the natural sciences upon which the science of nutrition rests. The present authors point out that a considerable amount of reorganization will be found in this edition. To quote from the Preface, "Progress in the field of vitamin research has been so rapid in the six years since the publication of the previous edition as to necessitate considerable elimination, condensation, and rearranging in these chapters. The chapters on energy, protein, water, and the minerals have been rearranged to accord with the order of presentation which has evolved out of our teaching experience with the book. The chapters on dietary planning have been quite completely rewritten with the object of simplifying the selection of adequate diets. The figures for the construction of adequate dietaries on the basis of percentage distribution of calories among the different food groups have been recalculated to make them more useful in evaluating and planning dietaries and brought together in tables for different age groups in the Appendix." The easy flow of language throughout the book gives no hint of the tremendous amount of revamping and rewording which was necessary in order to incorporate all of these changes.

A word about the very useful Appendix is in order. For example: the table of nutritive values of foods in shares is now preceded by a revised table of recommended daily allowances for specific nutrients in shares, calculated from the N.R.C. recommended daily allowances for specific nutrients; and the table of nutritive values of foods in weights (a new feature), by a table of N.R.C. recommended dietary allowances. The values for one share of protein, calcium, and iron now appear as 2.33 gm., 27 mg., and 0.4 mg., respectively, and those for vitamin A and for vitamins B, C, and G in International Units and milligrams rather than in Sherman units. Values for phosphorus are omitted in all tables. As in the previous edition, vitamin B rather than B_1 is used to indicate thiamin in text and tables, and vitamin G, riboflavin. Standard height and weight tables are included, also tables of equivalents. The final group, "Working Plans for the Construction of Adequate Diets," originated by Mrs. Rose and showing the percentage of calories which should be provided by

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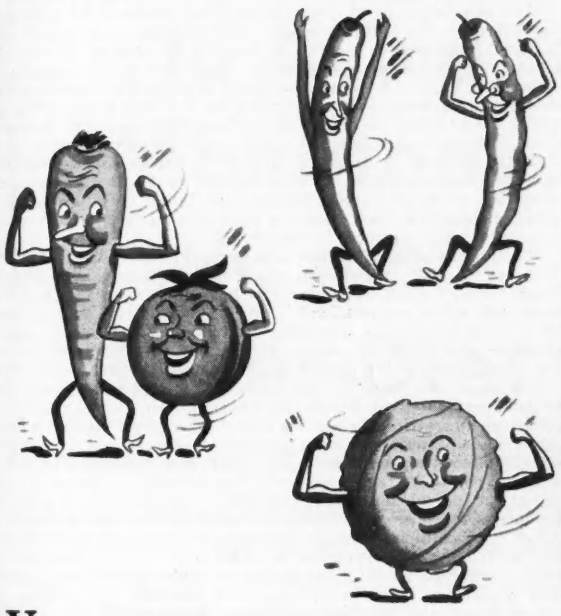

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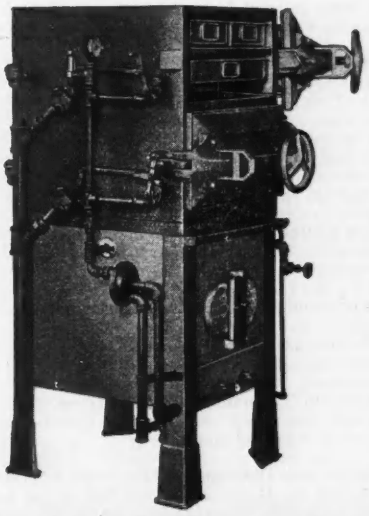

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The Art and Science of Nutrition. Second edition. By Estelle E. Hawley, Ph.D., and Grace Carden, B.S. St. Louis: The C. V. Mosby Company, 1944. Cloth. Pp. 668. Price $3.75.

As stated by the authors, the material for this new edition has been brought up to date with the advances in nutrition research of the past two years. The newer knowledge of vitamins, the N. R. C. recommended dietary standards, and additional adjustments of the normal diet for abnormal conditions are included. Recent pertinent references have been added to the bibliography.

The outline for teaching diet therapy has been entirely revised and in order that the student may more readily follow the changes necessary, the tables dealing with diet adjustment relate directly back to the table showing the normal diet for the normal adult. Lists of supplies for class work have been added to the laboratory outlines.

The book continues to cover a very broad field and in a style which is decidedly simple and direct, making it an ideal textbook for student nurses or others with a similar background of preparation. The unusually fine typography of the present edition and the many photographic illustrations add to the book's value as a teaching medium.

Elimination Diets and the Patient's Allergies. Second edition. By Albert H. Rowe, M.D. Philadelphia: Lea & Febiger, 1944. Cloth. Pp. 256. Price $3.50.

This new edition represents a complete revision and resetting of the entire book, necessitated by the many changes and additions which have been made by the author in order to emphasize the importance of food allergy in the production of many allergic manifestations and the value of the revised elimination diets for the study of possible food allergy, and to include a discussion of the other causes of clinical allergy and present-day methods for their diagnosis and control. Maintenance of proper nutrition during the use of trial diets is stressed throughout, accomplished by means of detailed menus and recipes and the use of vitamin supplements, if necessary, all under constant medical supervision. It is the author's opinion that the trial diet usually must continue for more than a few days. He states that "the symptoms and results of much food allergy are not relieved by fasting for twenty-four hours or by the exclusion of the allergenic foods for two or three days. The allergens usually remain in the blood and tissues for days, and possibly for longer periods, after the foods have been excluded from the diet."

In the second edition, a modified elimination diet is included for the study of food allergy in patients with colitis, and a discussion of the use of the diet and of other indicated types of therapy is presented. An excellent summary of the recognized and possible manifestations of clinical allergy with their likely allergenic causes in the order of probable frequency has been included. Other important features of the new edition are the following: slightly revised and simplified directions for the preparation of soybean substitute for cow's milk, inclusion of a formula utilizing liquefied meat for infants who are allergic to animal milk and legumes, revision of recipes for bakery products for cereal-free diets, and a discussion of the effect of the war and rationing on elimination diets.

For the benefit of those not familiar with the first edition of this book, it should be stated that it is a complete treatment of the subject, containing both in the text and in the Appendix such valuable information for the dietitian as menus, recipes, questionnaire for the allergic patient, food diary chart, and ingredients in commercial food products. The elimination diets have been used successfully by the author, who is lecturer in medicine, University of California Medical School, San Francisco, and consultant in allergic diseases, Alameda County Hospital, Oakland, and by other physicians, for fifteen years.

Fowl and Game Cookery. By James Beard. New York: M. Barrows & Company, Inc., 1944. Cloth. Pp. 196. Price $2.

This is a collection of the author's favorite recipes for game and fowl; it does not claim to be an "encyclopedic cook book," and indeed it is not, nor is it orthodox in any way, even in the arrangement of the recipes—by which its usefulness suffers somewhat. This is the type of book which should be taken leisurely from the shelf and read casually to pass the time in a long winter evening, but it would never do for the busy housewife or war worker who must rush to the kitchen, drop her bundles, snatch a cook book from the shelf and turn to a recipe in which directions for cooking even a "company" dish are given briefly as points one, two, and three and in which the ingredients are listed in the order used. Nevertheless, the book deserves attention for it contains many ideas worth salting down for future use.

The author's independence is evidenced in his statement in the Preface: "I don't believe in eating certain dishes with feigned relish because a self-appointed few have pronounced such dishes as superb, or as gourmet food." We might add that he has, however, included many of the dishes which he dislikes for the benefit of those who do relish them. His masculine style adds zest to the discourse on, for example, chicken sandwiches, concerning which he opines that "it really takes time and careful handling to produce what I call a well-tailored sandwich," and he gives the following suggestion for serving club sandwiches: "If it is a large party, have plates of the makings and toasters going and let everyone do his own construction work. In that way you don't have to ask who wants what and where." Incidentally, quantity recipes are given for chicken salad, and other consideration is given to the needs of those responsible for food in large establishments. All of the familiar, and some unusual, domestic and wild fowl are included; the section on game is confined to venison and squirrel with an unenthusiastic word or two for raccoon, opossum, skunk, and muskrat. There is an excellent chapter on stuffings in which, in passing, the author deplores the excessive use of "that hog of the herb world—sage."

Sea Food Cookery. By Lily Haxworth Wallace. New York: M. Barrows & Company, Inc., 1944. Cloth. Pp. 180. Price $2.

This is an attractive, useful book containing much factual information and many recipes for the housewife and others interested in plain fish cookery. The material is well organized: general information about each fish—where and when it is available, the type of cooking to which it is best adapted, whether it is easily boned, etc.—is followed by recipes for that particular fish. There are separate chapters on fresh and salt water fish, shell-fish, fish sauces and stuffings, fish leftovers, and canned, salt and smoked fish. There are some tempting recipes for appetizers, soups, and sandwiches. In addition, a chart shows seasonability and cooking methods for all fish commonly found in markets in the United States (some of the more unusual fish receive attention in the text), and another useful chart gives appropriate fish accompaniments. Also, there are several menus for breakfasts, luncheons, and dinners featuring fish.

In short, a mere glance at the table of contents and index will reveal that this is a really complete book on the preparation and cooking of all fish found in the ocean coastal areas, inland lakes, and rivers of the United States.

Indirect War Losses of Europe. After the last great war it was found that "indirect war losses" greatly exceeded direct casualties. The indirect losses included the children who would have been born but for the war, the children dying in infancy as a result of wartime increased infant mortality and the civilians who died as a result of wartime epidemics and a wartime increase in the general death rate. The Belgian urban population subsists on about one third of the minimum diet prescribed by the League of Nations. But, as the International Labor Office points out in its report, the brunt of deterioration in diet is borne by adolescent children, who are especially susceptible to tuberculosis. The average town child in occupied Europe is underfed, short of vitamins and too hungry to concentrate . . . Stray scraps of news throw light on the terrible conditions. Bread is "diluted" with hydrolyzed straw or chestnut meal from which the oil has been extracted. Last year in France the average family got fish once in three months. The Dutch are eating dog and cat meat. In Greece, Poland and occupied Russia the conditions are much worse. Bread, of sorts, is the only food available in Greece; proteins are almost wholly lacking. In a land ravaged by typhus the Poles subsist on less than a fourth of the minimum requirements of food, and the lack of potatoes, their staple, is serious.

—*Foreign Letters, J.A.M.A., 125: 299, 1944.*

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Current Literature

Contributed by Helen Baughman, Janet Engebretsen, and Hilda McEwen, Dietary Department, Johns Hopkins Hospital, Baltimore; Quindara Oliver Dodge, School of Home Economics, Simmons College, and Women's Educational and Industrial Union, Boston; and the Journal Staff.

AMERICAN JOURNAL OF DISEASES OF CHILDREN

Vol. 67, April 1944

*Dental caries as influenced by fat versus carbohydrate in the diet. J. D. Boyd. —p. 278.

Dental Caries. For a period of not less than 3 years, 111 diabetic children were observed on various dietary regimes. Original high-fat diets were alternated with diets containing half the amount of fat and twice as much carbohydrate. Dental records were kept throughout to determine the tendency toward caries. Results showed no increase in progression of caries even when carbohydrate was doubled. Explanation of both diets in prevention of decay lies in the high nutritional value of either regime.

AMERICAN JOURNAL OF MEDICAL SCIENCES

Vol. 207, April 1944

*The influences of large doses of vitamin A upon the plasma vitamin A level. F. Steigmann and H. Popper.—p. 468.

*Analysis of results obtained with small doses of gold salts in the treatment of rheumatoid arthritis. W. B. Rawls, B. J. Gruskin, A. A. Ressa, H. J. Dworzan and D. Schreiber.—p. 528.

Plasma Vitamin A Level. Ingestion of large doses of vitamin A raises plasma vitamin A temporarily, and after 24 hours the previous level is reached; this curve is known as the tolerance curve. No relationship exists between fasting plasma levels and the maximal increase in tolerance curve, except in liver damage. Jaundiced patients with a near zero plasma reading usually had no response. Type of vitamin A administered made only a slight difference in curves. When vitamin E was administered simultaneously with vitamin A, variations were noted in both directions but averages of the two curves were similar. Parenteral supply of vitamin A is important in liver disease as such patients generally fail to absorb this vitamin. Intramuscular injection of vitamin A caused no rise of plasma level, but did increase the vitamin A stores in the liver.

Gold Therapy. The mechanism underlying the beneficial effect and toxic reactions is unknown; large weekly doses of gold cause more frequent and severe reactions. Small doses will give same therapeutic result. In 100 patients treated with small doses, 53% improved with almost complete remission of symptoms; 21% definitely improved, and 12% had slight improvement. Signs of improvement are: reduction of sedimentation rate; relief from pain, swelling, stiffness; or increased motion.

AMERICAN JOURNAL OF PHYSIOLOGY

Vol. 141, April 1944

*The gastric emptying time of man at high and normal environmental temperatures. A. Henschel, H. L. Taylor and A. Keys.—p. 205.

*Cardiac insufficiency in the vitamin E deficient rabbit. O. B. Houchin and P. W. Smith.—p. 242.

*The effect of aluminum hydroxide gel on gastric secretion. W. L. Adams and B. B. Clark.—p. 255.

*The effect of vitamins and sex hormones on dietary achromotrichia in mice. B. Lustig, A. R. Goldfarb and B. Gerstl.—p. 259.

Gastric Emptying Time at High Environmental Temperature. Gastric emptying times were observed on 17 normal young men at rest in environmental temperatures of 77 and 120°F. In all but one of the subjects the gastric emptying time was faster at the high temperatures; 12 had an average decrease of 30% in the gastric emptying time when the temperature was 120°F. Observations on 100 normal men doing hard work at 120°F. failed to indicate any lack of appetite or any signs of decreased gastric activity except in actual heat exhaustion.

The Heart in Vitamin E Deficiency. It is concluded that the sudden death of vitamin E-deficient animals in an advanced stage of muscular dystrophy is due directly to myocardial failure.

Effect of Aluminum Hydroxide Gel on Gastric Secretion. The effect on pouch secretion of 5 consecutive days of feeding moderate doses of aluminum hydroxide gel 3 times daily after a test meal was studied using the Cope pouch dog. No depression of secretory activity occurred either during or after the administration of the antacid. Administration of moderate doses of aluminum hydroxide gel was accompanied by occasional increases in volume, total chloride, total base, and free acid of the pouch secretion, but in the majority of experiments these increases were too small to be significant.

Vitamins and Sex Hormones in Dietary Achromotrichia. Evidence is offered indicating involvement of endocrine factors in the achromotrichia that mice of the C-57 strain develop on a vitamin-deficient diet. The females are less susceptible to graying than the males. P-aminobenzoic acid and pantothenic acid alone or combined do not prevent or cure graying. Addition of inositol or cystine to the diet is without effect.

AMERICAN JOURNAL OF PUBLIC HEALTH AND THE NATION'S HEALTH

Vol. 34, April 1944

*Surveys of the nutrition of populations. 3. The vitamin A nutrition of a rural population in middle Tennessee. J. B. Youmans, E. W. Patton, W. R. Sutton, R. Kern and R. Steinkamp.—p. 368.

Vitamin A Nutrition of a Rural Population. There was a deficient dietary intake of vitamin A in a large proportion of the population, unaccompanied by a correspondingly high incidence of symptoms or physical signs of a deficiency except in a relatively small number of the subjects. The dark adaptation test and the concentration of vitamin A in the blood, however, indicated a degree of deficiency comparable to that suggested by the dietary intake. Reasons are given why the dark adaptation test may not be a reliable measure of vitamin A deficiency, but the concentration of vitamin A in the blood is believed a significant index of vitamin A nutrition. Manifestations of a deficiency vary at different levels of intensity and duration and according to definitions of deficiency. Neither the deficiency of intake nor the objective manifestations of a deficient nutrition were distributed equally among the various age, sex, and racial groups. While the explanation for some of these differences seems quite clear, others are at present unexplained.

ANNALS OF INTERNAL MEDICINE

Vol. 20, April 1944

*Migraine headaches relieved by hypoglycemic reaction. S. J. Tillim.—p. 597.

*Small intestinal disorders in avitaminosis. N. Learner, H. M. Stauffer and C. L. Brown.—p. 675.

Migraine Relieved by Insulin. Two cases are reported in which both patients had become addicted to morphine to relieve migraine. The patients were hospitalized, given insulin to produce mild hypoglycemic reactions. These injections were all given intravenously; relief generally occurred in a short time. After discharge, both patients were greatly improved; coincidentally, both subsequently underwent operations with no recurrence of migraine. Induced hypoglycemia is antispasmodic and antagonistic to sympathetic nervous activity which probably explains the relief. Insulin injection has also been effective in relieving asthmatic attacks, urticaria and premenstrual cramps.

Intestinal Disorders in Avitaminosis. Parts of the vitamin B complex affect gastro-intestinal motility and absorption. In the early deficiency stage, hypermotility and hypertonicity are characteristic. As avitaminosis progresses, the pattern reverses and hypomotility and dilatation are common. Roentgenologic changes are not an absolute basis of diagnosis as emotional disturbances will change the intestinal pattern; likewise, healthy children often show a "deficiency pattern." Vitamin B therapy deserves a trial when such a pattern is followed; yeast by mouth is recommended or crude liver extract given parenterally.

ARCHIVES OF INTERNAL MEDICINE

Vol. 73, April 1944

*Use of a synthetic diet for food allergy and typhoid. W. H. Olmstead, C. G. Harford and S. Forrest.—p. 341.

*Diseases of the liver and biliary tract: hepatic involvement in various diseases related to the war. C. H. Greene.—p. 349.

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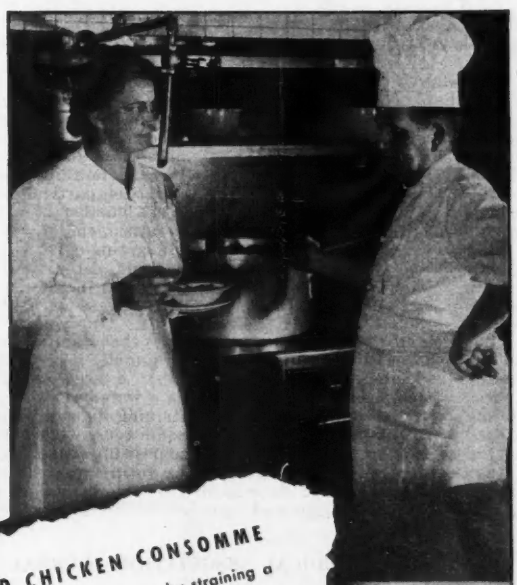

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Liver and Biliary Tract Infections. An extensive review concerning aspects of tropical diseases affecting our troops in reference to hepatic conditions.

ARCHIVES OF PEDIATRICS

Vol. 61, April 1944

*Oral deallergization of food allergy with propeptans. E. Urbach.—p. 184.

Oral De-allergization. Food propeptans are preparations in which the digestion of the proteins is carried beyond the stage of proteoses while retaining the specificity of the protein from which it was derived. Food propeptans serve two purposes: in diagnosing the responsible allergenic food or foods; in treating hypersensitiveness due to nutritional allergens. Treatment can be carried out with species-specific propeptans when the offending foods have been determined, or with polypropeptans (a mixture of 12 specific food propeptans) if it is not deemed essential to ascertain the responsible agent.

BRITISH MEDICAL ASSOCIATION JOURNAL

No. 4342, March 25, 1944

*Control of very severe diabetes by a new arrangement of insulin. R. D. Lawrence and W. Oakley.—p. 422.

No. 4343, April 1, 1944

*Survey of vitamin C level in wartime pregnant women. A. A. Craig, F. J. W. Lewis and D. Woodman.—p. 455.
*Fluorine and dental caries. Editorial.—p. 461.
Absorption of iron. Editorial.—p. 464.

Controlling Severe Diabetes. In 100 cases of the very severe type of diabetes (high fasting blood sugars and morning ketosis), the addition of a small dose of protamine zinc insulin to the evening injection of soluble insulin results in the lowering of the fasting blood sugar, with consequent decrease in morning insulin requirement and absence of ketone bodies in the early morning specimen of urine. Treatment along these lines has been particularly successful in pregnant diabetics and also in a number of children, provided there is an adequate bedtime nourishment.

Vitamin C Level in Pregnancy. In a group of 40 pregnant women examined as to their degree of vitamin C saturation, under wartime conditions, there was a wide variation in the degree of saturation and on the low side, and a marked seasonal variation, with higher levels from June to October.

Fluorine and Dental Caries. It appears that fluorine protects the teeth by combining with the enamel, thereby making it more resistant to bacterial action in the mouth. A large-scale human experiment comparing the effect of using a water with 1 part per million of fluorine and a dentifrice containing fluoride merits an extensive trial under well-controlled conditions. The effect of sucking tablets containing fluoride should possibly also be included in the comparison. Prophylaxis in the future may lie not in regulating the amount of fluorine in the water supplies but in legislating for the inclusion of specified amounts of fluorine in every dentifrice.

CANADIAN MEDICAL ASSOCIATION JOURNAL

Vol. 50, April 1944

*A demonstration in nutrition. H. Siemens.—p. 359.

Nutrition Demonstration. A Nutrition Camp for 30 malnourished boys was established, with a nurse, nutritionist, and an instructor in physical training on the staff. The nutritionist planned suitable menus and gave instruction to the women of the district, pointing out the essential constituents of the diet and the intelligent use of locally produced foodstuffs. About 10% of the housewives attended. The camp was considered a teaching unit rather than a place of treatment. The mothers learned that vitality, alertness, and a feeling of well-being are much more important in a boy than his weight. There was an average gain of 4.6 lb. in the 6-week period of the study.

INDUSTRIAL MEDICINE

Vol. 13, February 1944

*Better nutrition in plant personnel. To what extent can the industrial medical department contribute. C. W. Hoffman.—p. 128.
*Group feeding in small plants. Observation on why and how. F. J. Underwood, M. Stansel and W. L. Ritter.—p. 160.

Better Nutrition in Plant Personnel. The average American worker does not eat adequately from the point of view of optimum nutrition. Since human efficiency varies according to the nutritional quality of the food consumed, this is a vital industrial problem. It seems more sound to strive for a well-balanced daily diet in employees rather than to depend upon the addition of synthetic foods such as vitamins. A plant cafeteria run by management on a nonprofit basis, inspected and encouraged by the medical department and supervised by a trained nutritionist, will go a long way toward improving the nutrition of employees.

Group Feeding in Small Plants. Various factors have persuaded industrial management to see the wisdom of providing food for their employees. The national emergency has brought into prominence 3 factors whose urgency has caused a more rapid and widespread adoption of such programs: point rationing and shortages of certain foods; proved necessity of highly nutritious food to ensure maximum efficiency; necessity of having food immediately available for large numbers of people who must be fed frequently and in a very limited amount of time. To meet these needs in the smaller industrial units a step-by-step plan, as follows, is presented which could be adapted to the requirements of an in-plant feeding program in any given plant: Provide a clean, cheerful space where employees may eat. Where convenient, vending machines may be used to supplement the worker's lunch box and to fill the requirements of supplementary feeding periods. Employment of a dietitian or home economist who has specialized in institutional feeding. The establishment first of a canteen at the end of the lunchroom which will progressively supplement and ultimately replace the worker's lunch box. Where a program is developed too hastily failures may result. Like all other industrial services this should develop in response to employee needs and requests and not be foisted upon them in the face of scant interest and support.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Vol. 125, May 6, 1944

Hormones of the anterior lobe of the pituitary body. E. H. Rynearson.—p. 5.
Clinical use of extracts from adrenal cortex. G. W. Thorn.—p. 10.
*The clinical use of extracts from the testes. W. O. Thompson.—p. 15.
*The synthesis of glycogen in the test tube. Editorial.—p. 32.
*Salivary amylase and dental caries. Current comment.—p. 35.

Vol. 125, May 27, 1944

*Sixth annual congress on industrial health. Report of chairman of council. S. J. Seeger.—p. 239.
*Conquest of tuberculosis in industry. H. E. Hilleboe and D. M. Gould.—p. 241.
*The new movement in industrial sanitation. M. H. Solworth.—p. 243.
*The detection and treatment of nutritional deficiency diseases. T. D. Spies.—p. 245.
*Nutrition in industry. Council on foods and nutrition and council on industrial health.—p. 275.
Evaluation of studies on gelatin preparations for intravenous use. Medicine and the war.—p. 284.

Extracts From Testes. One of the most interesting and important recent developments is the demonstration of the influence of testosterone propionate on the growth of young boys. Chorionic gonadotropin produces the same effect by stimulating the testes to produce male sex hormone. Administration of these materials will cause young boys to grow at 3 to 4 times the normal rate. They influence not only the growth of bone but that of the musculature and of every tissue in the body. This means that the male sex hormone is a general growth stimulus influencing growth and function of all tissues. It will cause bones of young boys to age at 3 to 4 times the normal rate and induce premature closing of the epiphyses. It does not appear to affect final height, because rapid aging of bone is counterbalanced by rapid increase in height. Increase in rate of growth is self-limited, and it is impossible to produce gigantism with this material. As there is no preparation of the pituitary growth factor which is effective clinically, administration of male sex hormone is of value in the treatment of pituitary dwarfism. While it produces a consider-

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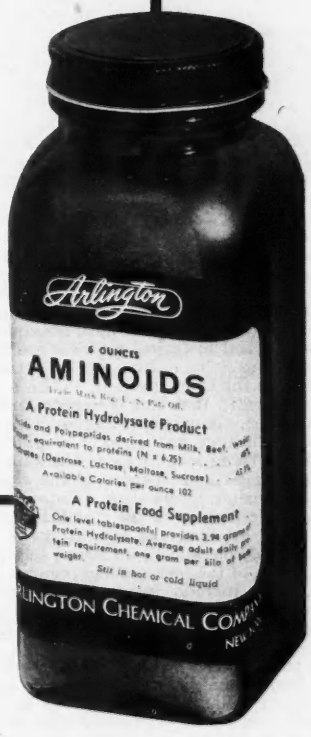

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able amount of growth in this condition, it does not result in normal height of the skeleton.

Synthesis of Glycogen. The hydrolysis of protein and conversely the synthesis of polypeptides from amino acids *in vitro* are landmarks in our understanding of protein metabolism. The same is true of carbohydrate metabolism and particularly the process by which glycogen is formed (glycogenesis) and broken down (glycogenolysis). Enzyme reactions are at the very heart of all biologic processes; only by knowledge of their mechanism will a true understanding be reached as to the real behavior of all vital mechanisms.

Amylase and Dental Caries. A clear relationship between salivary amylase and the incidence of dental caries is reported. In order to establish this relationship, the rate of starch hydrolysis by saliva was determined under standard test conditions. In persons without dental caries this hydrolysis required approximately 45 min. for completion. The saliva of those with 4 to 6 cavities completed the hydrolysis within 19 min., those with 10 to 12 cavities within 7 min., and those with 20 to 30 cavities in less than 2 min. Without exception the rate of starch hydrolysis increased in direct parallelism with the number of cavities.

Industrial Health. The physician should be the central figure in health activities, whether in the field of clinical medicine, public health, or preventive medicine. The problems of medical service in this country are being solved in many areas by developments which center about industry and are essentially on a grass roots basis. In a majority of hospitals in America the staff has no control over medical policies. The organization of many hospitals is obscure or so ill-defined that medical staff organization cannot contact the lay individuals who control policies. The organization of industry lends itself to a logical and ethically sound approach to the development of health programs.

Tuberculosis. Tuberculosis strikes down the very ones who are most valuable as industrial workers—men and women between the ages of 20 and 45. Nearly one half (47%) of all deaths from tuberculosis in this country during the period 1939-41 occurred among this age group. From early adulthood to age 35, tuberculosis is the leading cause of death. It is one of the first 3 causes of death at ages 15–49. For ages 20–34 one out of every 6 deaths among white persons and one out of every 3 among nonwhite persons is due to tuberculosis. Our principal task now is to extend tuberculosis control activities so as to reach the greatest number of workers and their families in the shortest possible time, making full use of all private and public resources. With energetic and concerted action, the final eradication of tuberculosis from the United States is well within our grasp.

Industrial Sanitation. The training of sanitation personnel goes hand in hand with research, because new materials and new implements combined with time and motion study necessitate constant schooling for the janitors. Usually the janitorial staff comprises the flotsam and jetsam of the personnel—the failures, the pensioners, the physically unfit, the lowest wage earners. Occasionally, if an ambitious or a conscientious man comes into this group, his only thought is to be transferred to another department. There is need for an awakening to a sense of pride, awareness, and responsibility in this group by progressive education.

Deficiency Diseases. Shortage of manpower has stimulated increased interest in health and welfare of the industrial worker; never before have so many physicians, nutritionists, and nurses directed their efforts toward problems of nutrition in industry. An early and accurate diagnosis is the essence of successful treatment of nutritional deficiency diseases, and this can best be made by interpretation of all the data obtained from accurate dietary surveys, medical histories, physical examination, and laboratory determinations. No outline for collecting such data will suffice in all details for every patient. (The author includes forms for recording data.) In taking the general medical history the following symptoms, though not diagnostic, suggest possible development of a deficiency state: loss of weight and strength; headaches; dizziness; burning sensations of the skin on various parts of the body; roughness and dryness of the skin; burning of the eyes, blurring of vision, lacrimation, photophobia and night blindness; burning and cramping of the stomach; burning of the tongue and lips; redness, swelling and ulcerations of the tongue and mucous membranes of the mouth; increased salivation; diarrhea; burning and cramping of the feet and legs; central nervous system disturbances, which include insomnia, general nervousness, loss of memory, apprehension and hypersensitive emotional reactions. Diagnosis of vitamin deficiency diseases is made only in the presence of one or more characteristic lesions. For example, pellagra only in the presence of characteristic oral or mucous membrane lesions; beriberi only in the presence of beriberi heart or nutritional neuritis; riboflavin deficiency only in the presence of cheilosis or typical ocular lesions; scurvy only in the presence of characteristic gum lesions, petechiae or subperiosteal hemorrhages. Once a correct diagnosis is made, therapy is directed along the following lines: A liberal amount of a well-balanced diet (120 to 150 gm. protein, 3000 to 4000 calories, and liberal amounts of minerals and vitamins); symptomatic treatment along with treatment of coexisting diseases; removal, whenever possible, of conditions causing excessive requirements for nutrients; administration of therapeutic substances in sufficient amounts to correct the deficiency. In treating thiamin, niacin, riboflavin, and ascorbic acid deficiency, a basic formula is given, containing 10 mg. thiamin, 50 mg. niacin, 5 mg. riboflavin, and 75 mg. ascorbic acid. In the presence of a predominating deficiency more of the vitamin specific for that deficiency is added.

Nutrition in Industry. "The committee applauds the progress made to date in the development of the Government program for increasing in-plant feeding wherever on-the-job feeding can be shown to be practical and feasible. It finds little to criticize and much to commend in the program to improve nutritional standards of food served in such establishments and, by educational effort, to raise the nutritional standards of meals of workers in their homes or carried as lunches. It is particularly pleased to learn of the cooperative activities of various agencies of the Government represented on the Inter-Agency Committee on Food for Workers and, in particular, to learn that the War Manpower Commission and the War Production Board are prepared to make available the personnel and materials necessary for establishing and maintaining restaurants in plants. . . . It is further resolved that the Office of the Council on Foods and Nutrition be prepared to provide physicians in industry with all pertinent information relating to the evaluation of distributing multivitamin preparations as a means of correcting inadequacies in workers' diets." The Council offers the recommendation that medical supervision, to the extent of guiding management in furnishing suitable in-plant feeding facilities and dietaries and counseling with the workers in the prevention of nutritional deficiency states, is a function of industrial health.

JOURNAL OF BIOLOGICAL CHEMISTRY

Vol. 153, April 1944

*Studies on anemia in swine due to pyridoxine deficiency, together with data on phenylhydrazine anemia. G. E. Cartwright, M. M. Wintrobe and S. Humphreys. —p. 171.

*Carbohydrate metabolism in vitamin B_1 deficiency. A Chesler, E. Homburger and H. E. Himwich.—p. 219.

*Amino acid absorption and utilization in the chick. F. H. Kratzer.—p. 237.

*The deposition and storage of α-tocopherol in abdominal fats. W. O. Lundberg, R. H. Barnes, M. Clausen and G. O. Burr.—p. 265.

*Water-soluble vitamins in sweat. F. Sargent, P. Robinson and R. E. Johnson. —p. 285.

Anemia Due to Pyridoxine Deficiency. Studies on the pig indicate that an increased rate of hemolysis does not occur in pyridoxine deficiency. By restricting the dietary intake of iron in pyridoxine-deficient animals, hemosiderosis of the tissues has been prevented, and ferremia has not only been prevented but serum iron has been maintained at the low level seen in iron deficiency. Ataxia, convulsions, neurological lesions, and fatty livers of pyridoxine deficiency were not altered by limiting iron intake in the combined deficiency. Urinary excretion of iron in pyridoxine deficiency is insignificant and is not altered from normal. Increased iron in the serum of pyridoxine-deficient animals is in the ferric state. Chlorophyll, sodium magnesium chlorophyllin, antipernicious anemia liver extract, tryptophane, corn oil, crude hemoglobin, hemin, and iron ascorbate were ineffective in stimulating blood formation in pyridoxine-deficient animals. Evidence is presented that ferremia and hemosiderosis are due to continued absorption or decreased excretion of iron at a time when its utilization for hemoglobin formation is at a minimum and body tissues are abundant with iron. This is an exception to the observation that in other types of anemia absorption of iron appears to be dependent upon the need of the body for iron.

Vitamin B_1 Deficiency. As a result of B_1 deficiency in most instances, the postabsorptive level of blood sugar became high and the curve exaggerated. Both lactic acid and pyruvic acid accumulated in the blood of vitamin B_1-deficient animals. In partially deficient animals the average lactic acid to pyruvic acid ratio was lower than in the normal, with postabsorptive values of 5.8 and 6.6 (average 7.7); *in extremis* it was higher than in the control, with a postabsorptive value of 10.7.

Amino Acid Metabolism. Rate of absorption of amino acids from the gastro-intestinal tract of a chick varies inversely with the apparent molal volume of the amino acid. In general, blood amino nitrogen of a chick increases after absorption of amino acids from the gastro-intestinal tract in proportion to the amount of amino nitrogen absorbed. Relative increase in blood amino nitrogen of a chick after oral administration of various amino acids is similar to that observed in mammals. Oral administration of a hydrolyzed protein causes a greater increase in blood

Germs die young in Army dishpans!

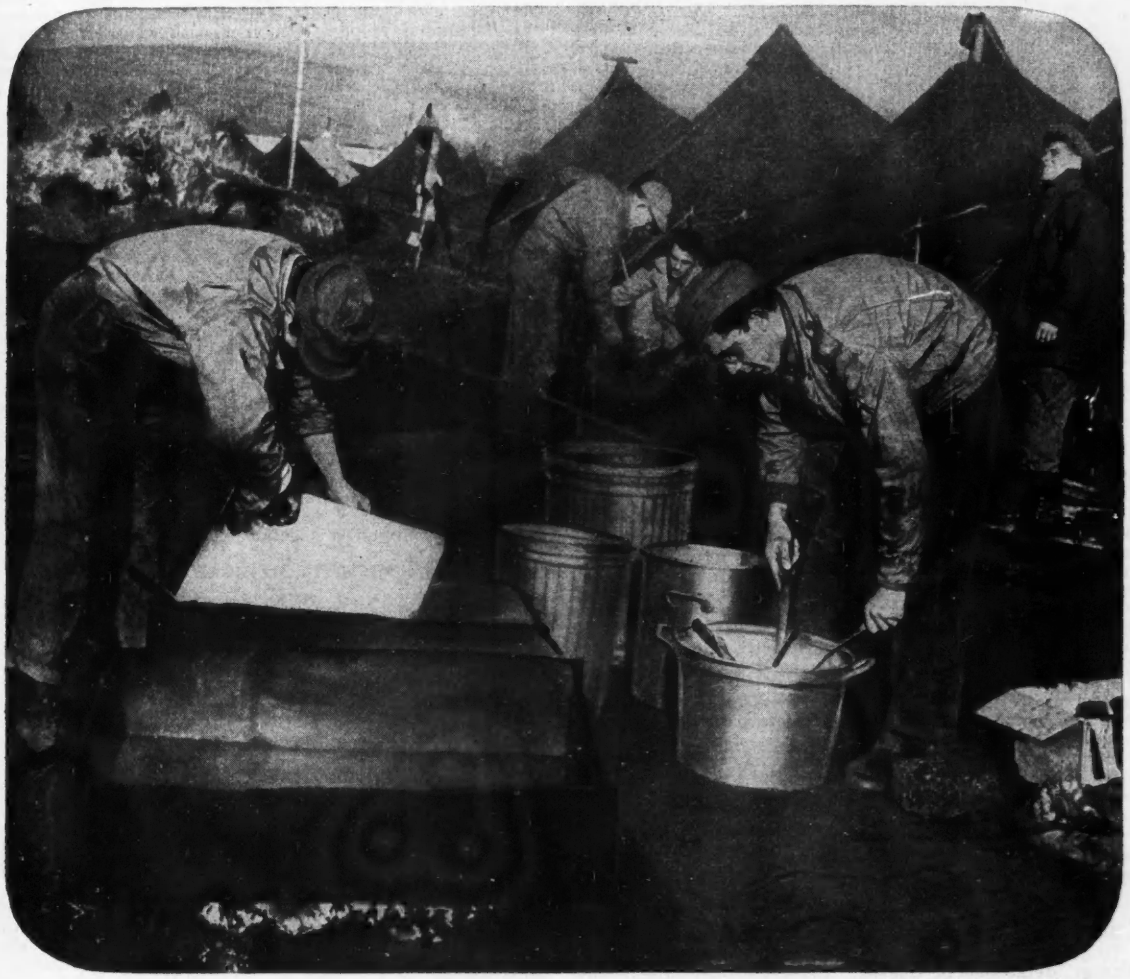

Photo by U. S. Army Signal Corps

The "life expectancy" of G. I. germs is mighty slim. Take saliva-borne bacteria. Unchecked, such germs could travel *through communal dishwater* from one mess-kit to another, spread contagion. But germicides like Mikroklene used as a dishwashing rinse give real safety.

Mikroklene *chemically disinfects* Army messkits. After washing and rinsing, a dip in Mikroklene solution destroys millions of disease-carrying microbes. Yet Mikroklene is slow to become inactivated by organic matter such as soap and food residue in the rinse water. Because of this *longer* "staying power," Mikroklene goes farther. In the Army, only 3.4 ounces of powerful Mikroklene disinfect 200 mess-kits.

After the war, Mikroklene Washing Compound and Mikroklene Rinse can provide new safety for public health. Easily, quickly—utensils *washed by hand* in restaurants, institutions, homes, can be made germicidally clean. And stationary equipment, too, used for storing and preparing food, can be chemically disinfected by sponging with Mikroklene solution.

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amino nitrogen of a chick than does administration of intact protein.

A-Tocopherol in Abdominal Fats. A maximum deposition of α-tocopherol in the abdominal fats of vitamin E-free rats, exclusive of mesentery, is not achieved until 7 to 10 days after a single 50-mg. dose. Concentration of tocopherol decreases slowly thereafter, reaching a level of about one half the maximum after 2 months. Feeding α-tocopherol in various amounts up to 500 mg. results in deposition of increasing amounts of abdominal fats. The amounts deposited indicate that fat depots may be major sites of storage under certain conditions.

Water-Soluble Vitamins in Sweat. From a review of various investigations, it is concluded that loss in sweat is not a significant factor in depleting body stores of water-soluble vitamins. Even under severe conditions, loss in sweat is much less than that excreted in the urine.

NAVAL MEDICAL BULLETIN

Vol. 42, April 1944

*Essential factors in proper dishwashing.—p. 990.

Essential Factors in Proper Dishwashing. This article details the principles and specific method of proper dishwashing and, though designed primarily for the Navy Department, it will apply in any institution situation.

NEW YORK STATE JOURNAL OF MEDICINE

Vol. 44, January 15, 1944

*The incidence of deficiency syndromes. H. T. Kelly and M. Sheppard.—p. 172.

Deficiency Syndromes. In a study of 225 patients from the upper income levels to determine prevalence of deficiency syndromes, complete medical and dietary histories were secured and thorough physical and nutritional examinations, laboratory tests, and roentgenologic studies conducted. Causes of nutritional failure are dietary inadequacy and/or nutritional inadequacy. The physician should be thoroughly familiar with the signs and symptoms of nutritional failure, the somatic and psychogenic factors that interfere with mechanical and chemical digestion and absorption, conversion and storage in the liver, distribution, degree of utilization, and loss of formed elements, since these factors bring about nutritional failure in spite of dietary adequacy. Changes in the intestinal pattern should be of vital importance to the clinician and offer a clue as to the stage of the deficiency.

PHYSIOLOGICAL REVIEWS

Vol. 24, January 1944

*Obesity. I. Energy metabolism. L. H. Newburgh.—p. 18.
*Obesity. II. Etiological aspects. J. W. Conn.—p. 31.

Vol. 24, April 1944

*The bread problem in war and in peace. S. Lepkovsky.—p. 239.

Energy Metabolism in Obesity. Investigations of the metabolism of obese persons have failed to disclose any abnormal process that accounts for accumulation of fat. On the contrary, they have demonstrated that obese persons produce more heat in the basal state, that they expend more energy to perform a measured amount of work, and that their total heat production is greater than that of normal persons of similar age, height, and sex under the same circumstances. Since they are unable to absorb more energy from their food, it follows that they must eat more than normal people simply to avoid loss of weight.

Etiological Aspects of Obesity. Obesity is invariably the result of an over-all intake of energy which exceeds total dissipation of energy. With the few exceptions associated with an abnormally low basal metabolic rate, the mechanisms for dissipation of energy from the obese body are normal. Experimentally, a number of mechanisms leading to a desire for excessive amounts of food have been demonstrated. They include bilateral hypothalamic injury, severe and prolonged hypoglycemia, and hereditary bulimia. It has not been established that these are significant causal factors in human obesity. Abnormalities of the endocrine system which affect adipose tissue are more importantly related to the distribution of body fat than to excessive accumulation of it. Environmental influences upon appetite are established causes of obesity in a very large number of patients. These include emotional difficulties, family habit, early training, affluence, boredom, etc. Other patients become obese, not because they eat more, but because they expend less. Various types of prolonged illness, advancing years, and change to less active occupations result in obesity when a corresponding diminution in appetite fails to take place. Classification of obesity as exogenous, endogenous, endocrine, pituitary, thyrogenous, gonadal, etc., is misleading and should be discontinued.

Bread. This comprehensive article concludes that proponents of enriched bread are on tenuous ground. As foodstuffs such as meat, eggs, milk, fruits and vegetables become scarce as a result of the war, the whole wheat, if used, will become the mainstay of our diet and if properly combined with what protective foods will be available, the nutritional level of the population will remain high. If white flour is used, even if "enriched," it is difficult to see how deterioration of the national diet can be avoided.

SCIENCE

Vol. 99, April 14, 1944

*Adequacy of the essential amino acids for growth of the rat. V. E. Kinsey and W. M. Grant.—p. 303.
*Item. Science News.—p. 10.

Adequacy of the Essential Amino Acids. Growth was obtained in rats on synthetic diets in which the 10 essential amino acids were the sole source of amino acid nitrogen. Growth rate was dependent upon the quantity of amino acids fed and appeared to compare favorably with that obtained when a similar quantity of nitrogen was fed in the form of casein. No increase in growth was observed when nitrogen in addition to that given in the form of the essential amino acids was supplied as glycine. These experiments do not support the contention that unnatural forms of the amino acids are toxic.

New Deficiency Disease. A new deficiency disease, marked by muscular stiffness and deposits of calcium phosphate in all organs and parts of the body, has been described by Wagendonk. The preventive dietary factor is present in very small quantities in cream. Pasteurization destroys it. The same factor has also been detected in green vegetables, especially cabbage.

SOUTHERN MEDICAL JOURNAL

Vol. 37, April 1944

*Vitamin C in peripheral vascular failure: Results of recent studies. E. McDevitt, A. W. Duryee and B. E. Lowenstein.—p. 208.
*The therapeutic value of a thermolabile factor found in fats, particularly the lecithins, in dermatoses. F. M. Pottenger, Jr.—p. 211.

Vitamin C in Peripheral Vascular Failure. Scorbutic animals are more susceptible to shock than normal animals. Repeated trauma in scorbutic animals will not increase resistance to shock to the same degree possible in pigs with normal intake of vitamin C. Use of massive doses of vitamin C immediately following trauma will increase the survival time of animals, but does not lower the mortality rate. Since the vitamin C level in major surgery diminishes postoperatively, preoperative intravenous vitamin C might be of value in preventing shock.

Fat Factor in Dermatoses. In heat processing of food for animals, certain factors essential to the proper maintenance of skin and vascular tone, reproduction, development of the bones, maintenance of the natural form, and prevention of allergic manifestations are destroyed. By avoiding the destructive effects of heat in the preparation of food, it was possible to relieve many clinical manifestations of dermatoses. The factors destroyed apparently occur in all raw meats, particularly in the fats, but are especially useful as found in brain, liver, and heart muscle. Vegetable lecithins that have not been exposed to high temperatures have also proved useful. These factors are lacking in fats and oils subjected to high heat in processing and are not found in therapeutic amounts in pasteurized milk or butter made from pasteurized cream.

BAKER'S HELPER

Vol. 80, April 22, 1944

How to maintain motor starters in bakeries. G. D. Bowne and L. E. Markle.—p. 32.
*Pan conditions may account for angel food problems. W. E. Broeg.—p. 76.

Vol. 81, May 6, 1944

Suggestions for change without extra labor. J. A. Lambeth.—p. 44.
*Three little tricks in sweet goods production.—p. 70.

Angel Food Cake. One of the major problems with which bakers have been confronted in the production of angel food cake is shrinkage or sinking, as a result of having the pan too wet before baking, baking at too low a temperature, improper mixing, or poor materials. But more serious is the shrinkage caused by the condition of the pan in which the cake is well baked but pulls away from the pan leaving a slick shiny brown surface. Numerous studies and experiments have shown that a film of metallic oxide

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on the pan causes the shrinkage, thus preventing the cake from sticking to the pan as it should.

Bakery Techniques. A uniform icing on coffee rings is possible by use of a machine or a home-made contrivance which will give the same effect. Appearance is more uniform, the process more sanitary since fingers do not touch the icing, and the amount used on each ring is regulated. Another time-saving operation is the use of proofing sheets in dumping 3 dozen jelly doughnuts into a square frying kettle. Rolling butter into the dough with the fingers has many advantages; time is saved and the butter more evenly distributed.

FOOD INDUSTRIES

Vol. 16, May 1944

*Wartime vegetable salting. F. W. Fabian.—p. 72.
Dehydration's critical year. L. V. Burton.—p. 77.
17 ways to get workers. C. Gavrilova.—p. 80.
*Can coating program now under way.—p. 85.
*Vacuum sealing will retain vitamin C in evaporated milk. F. J. Doan and D. V. Josephson.—p. 91.
*New packages and products.—p. 96 ff.
*Food industry news.—p. 101.

Vegetable Salting. More vegetables were salted commercially during 1943 than in any year since canning became a commercial industry—10,000,000 lb. having been salted in the Pacific Northwest alone. Two general methods are the dry and wet, or brine, methods. Leafy vegetables may be dry-salted. Distribution of salt evenly throughout the vegetables is very important. Certain vegetables must be salted in brine because of their structure or lack of juice. Concentration of salt in brining is the same as in dry-salting; the only difference is in the method of application. Brine must completely cover the vegetables at all times to prevent spoilage. Losses of vitamins vary for different vegetables and the various methods of salting; brining also affects color and physical appearance. Most of the vegetables now being salted will be used for soup. Suggestions for salting are included.

Can Coating Program. The Army wants all cans destined for theaters of war to have exterior coatings which means that the cans in some 40 million cases of canned fruits and vegetables will be "pro-coated." Pro-coating camouflages bright tin cans and protects from rust.

Evaporated Milk Vitamin C Retention. Reported studies point conclusively to the feasibility of fortifying evaporated milk with ascorbic acid, provided the air commonly sealed in the can is eliminated. The cost of fortification to ensure a vitamin C content of 30 mg. per can after 6-months' storage should not greatly exceed 0.15 cents per can or 7.2 cents per case. The ascorbic acid content of currently manufactured canned milk indicated an average loss of over 75% of that originally present in the fresh milk. Laboratory experiments indicated that milk sealed without air maintained 50% more ascorbic acid throughout the storage period. While the results when vitamin C was added to canned milk sealed in this manner were not so favorable as had been anticipated, there is still much to be said for fortification of evaporated milk with vitamin C if the can is vacuum-sealed.

Self-heating Soup. H. J. Heinz Co. has a canned soup for American and British troops which can be made steaming hot in 5 min. simply by lighting a fuse found under the metal cap of the can. Several million cans have been manufactured.

Candy. A new 1½-oz. chocolate-coated candy bar contains 12 vitamins and 8 minerals. The product consists of chocolate, dried fruit, peanuts, oatmeal, dicalcium phosphate, soybean meal, dextrose, invert sugar, salt, vegetable oil, lecithin, artificial flavoring, vitamins, and minerals.

Yeast. A new product, Tastex Food Yeast, high in protein content, makes it possible to add B complex vitamins to home-cooked foods. A tablespoon is said to supply 99% of the average daily requirement of vitamin B_1, 25% of the vitamin B_2, and "20 other vitamins." The yeast can be combined with almost any home-cooked dish without affecting the flavor, it is claimed.

Packaging. Only glass and some plastics will be in adequate supply this year. The plastics industry has been able to maintain output on a relatively high level.

Food Markets. Important wartime population changes in the United States materially affect the distribution activities of food processors. Since 1940 huge masses of people have moved from the interior to war industries located in the coastal areas. Important shifts in markets have resulted.

Germicidal Lamp. The new Hygeaire system, manufactured by American Sterilizer Co., Erie, Pa., is said to kill bacteria in the air in plants and office areas. Air-borne bacteria and viruses are carried into the zone of ultraviolet rays by convection air currents, giving to the protected space the germicidal effect of 100 air changes per hour. The purpose of this germicidal unit is to protect the health of the employees and reduce absenteeism.

Ripening Bananas. Carbon dioxide is reported to affect the rate of ripening and the rate of development of vitamin C in bananas, but not the ultimate vitamin C content of the ripe fruit.

Palatability Tests. Studies on commercially dehydrated cabbage, beets, and rutabagas showed that soaking before cooking decreased flavor and firmness of texture. Dehydration decreased color in all except cabbage. Five months' storage showed that temperature variations produced more noticeable changes than did packing differences. Samples held at −40°F. and at 33°F. were usually good but those held at 57 and 75°F. acquired a brown color and lost flavor.

HOTEL MANAGEMENT

Vol. 45, May 1944

A streamlined bookkeeping system for small resort hotels. F. Hamilton.—p. 25.
*Teaching employees sanitary food handling. J. S. Warren.—p. 28.
Hotel under fire. A. M. Snapper.—p. 32.
142 ways in which eggs may be served. A. Easton.—p. 34.
*A guide to the purchase and preparation of fish. L. P. DeGouy.—p. 38.
*Tresco, prepared lemon mix.—p. 43.
*A new rolling snack bar.—p. 43.
*A portable dishwasher.—p. 43.
*The Lowerator Manufacturing Co.—p. 43.

Food Handling. Slides which show how to guard against the spread of infection by the careful handling of food, dishes, glasses, and silver have been prepared by officials of New York City's Health Department. This illustrated lecture, when presented to employees of hotels and restaurants, resulted in marked improvement in sanitary habits. One slide shows that sneezing and coughing, without use of a handkerchief, spread thousands of bacteria harbored in the nose and throat. Employees should never come to work with a cold. The health hazards caused by flies, rats, mice, and cockroaches are also discussed in detail, and preventive measures shown, also the correct procedures for washing and handling glasses, silver, and dishes. It is recommended that dishes be scraped, washed in hot water not exceeding 140°F. and containing a reliable detergent; sterilized for one or two minutes in water at 180°F. Hand-drying is not recommended. Silver or glassware should never be grasped by parts that come in contact with the customer's mouth.

Fish Chart. Specifications, sizes, market units, methods of cooking, and specific recipes are listed for pompano, porgies, redfish, salmon, and sardines. The seasonability of each is stated.

Tresco. Tresco is a prepared lemon mix which can be used to add flavor to either food or drinks. Made from "pure" ingredients, there is no metallic aftertaste.

Snack-Bar. A rolling snack-bar for serving between-meal refreshments, built on wheels, with shelves for sandwiches, etc., drawers for soft drinks and juices, straw and refuse bins, and space for a coffee container, has been introduced by the Albert Pick Co., Inc.

Portable Dishwasher. The Surgex Manufacturing Co. has developed a portable dishwasher for the complete immersion method. The machine is simple, durable, and efficient, although the total weight is just 48 lb. The capacity of one machine can be increased to 5000 dishes an hour by a simple assembly-line method. There are 3 units, the dishwasher, water heater, and sink.

Dish Storage. The Lowerator Automatic Dispenser provides a well-organized system for the storage of plates, dishes, trays, cups, and glasses. The capacity is adequate to carry over long busy periods without need for replacements. Space under the counter is utilized for storage. With each removal from the top of the stack, dishes are automatically brought up to counter height.

HOTEL MONTHLY

Vol. 52, April 1944

*After-the-war lighting for good hotels.—p. 19.
*Good personnel work in hotels now will mean better employees, better human relations for your postwar operations. E. J. Frawley.—p. 32.
Postwar problems and their solution. G. T. Thompson.—p. 36.
The virtues of stainless steel.—p. 58.

Modern Lighting. More effective and economical lighting can help hotel operators meet postwar competition. The trend is toward luminous wall panels, indirect lighting, cove and trough lighting for special effects. Recommendations are made for the number of foot-candles necessary in every part of the hotel. Proper shades, walls and ceilings painted with light-reflecting tints, and clean fixtures are essential.

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JOURNAL OF HOME ECONOMICS

Vol. 36, May 1944

*The woman counselor in industry. A. H. Clawson.—p. 271.
*School lunchroom manager. Q. O. Dodge.—p. 285.
*Three school lunch bills.—p. 289.

Woman Counselor in Industry. The qualifications often lacking in women counselors may be gained by training and experience. If the woman counselor of today can establish herself as a valuable addition to the industrial plant, her position in the postwar world will be assured. The home economist with her specialized training in handling the problems of women has a unique contribution to make in this field.

School Lunchroom Manager. The A. H. E. A. and A. D. A. joint committee on school lunches recently completed a manual for the home economics teacher who lacks training in institution management which includes a study of the social and economic status of managers of school lunchrooms and cafeterias. The manual also discusses the changing philosophy of child education and the development of child-care centers. If home economics graduates are to be encouraged to adopt school lunchroom management as a career, the status of managers must be raised.

School Lunch Bills. The need of federal aid in developing school lunch programs is indicated by the fact that three school lunch bills have been introduced: the Smith-Ellender Bill would channel funds through the state departments of education to provide technically-trained supervisors as well as food; the Wagner Bill (under USDA) would provide funds for food and for extension of services now available; the Russell Bill (a compromise of the other two) would provide funds to be administered through USDA for the purchase of food and also funds to be administered through the U. S. Office of Education to aid state school authorities in obtaining and training technical and supervisory personnel. The basis of allotment of funds under the Office of Education would be according to the ratio of children to adults in the state and the total number of children of school age; under the Wagner Bill the Secretary of Agriculture would allot funds as he sees fit; under the Russell Bill, on the basis of enrollment and need. The Smith-Ellender Bill incorporates nutrition education into the program.

NATION'S SCHOOLS

Vol. 33, April 1944

Food comes first, then schools. H. M. Kallen.—p. 20.
*Pelham's preservation program. C. Ungar.—p. 56.
*New pamphlets on school lunches.—p. 57.

Vol. 33, May 1944

A salary-guarantee plan. O. T. Weston, M. Williams.—p. 29.
*As Kaiser feeds them. M. E. Lowenberg, L. Sheldon.—p. 56.
Warm lunches for 10 cents. M. L. Settle.—p. 57.

Preservation Program. In Pelham, New York, adults and students attended classes and demonstrations on canning given by the State Department of Education. The director of the high school cafeteria was the teacher for this summer course; therefore foods grown in the school garden were used for demonstrating and stored for winter use. The townspeople learned the easy and sure methods of conserving foods from their victory gardens.

Pamphlets on School Lunches. The following are pamphlets on school lunches: "Nutrition Education in the Elementary School," Pamphlet No. 1, U.S. Government Printing Office, Washington; "Menu-Planning Guide for School Lunches," WFA, Washington; "Handbook for Workers in School Lunch Programs," USDA; "Lunch at School," WFA; "Put Punch in the School Lunch," Spec. Circ. No. 108, Massachusetts State College, Amherst; recipes of Lunchroom Managers Conference, Division of Vocational Education, University of Alabama; "Planning Meals for Industrial Workers," USDA; "Food Values on a Pound, Acre, and Man-Hour Basis for California Fresh Fruits and Vegetables," University of California Experiment Station, Berkeley; "Approved Films on Food and Nutrition," New York City Nutrition Program, 45 Lafayette Street, New York 13; "Manual for War-Time Food Storage," Conservation Division, WPB, 11th and H Streets, N.W., Washington; "School Lunch Recipes," USDA Misc. Pub. 537.

Kaiser's Day Nursery. Among the few institution-sized kitchens for feeding small children are those at the two child service centers of Kaiser Shipyards, Portland, Oregon. Each kitchen serves 15 units of 25 children from 1½ to 6 years of age. Everything runs on schedule—breakfast, morning nourishment, dinner at 11:30 and 12:00, mid-afternoon lunch, and supper at 5:30 and 6:00. Quantity recipes have to be adapted to children's needs by using half the amount of salt and sugar, less fat, and no spices. Considerable oven space is required as most of the children's dishes are baked. An innovation is the preparation of a main dish and dessert for parents to take home when they call for the child.

Dietitian's Aides in Milwaukee. My first assignment after completion of the Red Cross nutrition course and assignment to the Canteen Corps was 4-hour duty once a week at the Milwaukee Blood Donor Center. Preparation of food and service to donors, and attendant housekeeping, were the required tasks. Assignments to the Army Induction Center, the Aviation Cadets Training Center at Milwaukee State Teachers College, the Mobile Canteen, and emergency calls followed. All this was excellent preparation for entry to the Dietitian's Aide Corps.

After one hospital had requested the services of Dietitian's Aides, a meeting was called and a lay chairman, Mrs. Russell Wilcox, and a technical chairman, Miss Nell Clausen, were appointed. The attendance rolls of the nutrition courses were used as a mailing list for sending 3000 cards describing the new course and asking for applications. The returns were screened down to 300 and from these appointments were restricted to 85 who met the desired qualifications.

The first class consisted mainly of orientation to the course of study, a short history of the Red Cross and its Volunteer Special Services, chapter activities, and hospital ethics; the second, a demonstration of simple food preparation and use of food service equipment. Subsequent classes were held at the hospitals to which the future Aides were to be assigned. The chief dietitians at the four hospitals participating in the service had requested a specified number of Aides; the large class was divided accordingly, with the candidates sent to the hospitals nearest their homes; however, all Aides were allowed a choice of hospitals.

Twenty-five hours of theory followed, with an additional 15 hours of practice interspersed. Study outlines were modified to conform with the practices of each hospital.

My training course, under the direction of Miss Clausen, was divided into two sections, Administration and Diet Therapy. That on Administration consisted of menu-making, food preparation, accounting, training of personnel, supervision of personnel, and housekeeping; Diet Therapy consisted of supervision of preparation and service, and visits to patients. General diets were first planned and used as a basis for special diets required in the hospital. Diabetic, ketogenic, and celiac diets were planned in class. Later, special diets written for these diseases by Miss Clausen were prepared. Learning about weighing of foods, computing the amounts prescribed, reactions to certain foods, as well as the countless other details with which a dietitian must be concerned, opened the eyes of all of us to the importance of the profession.

Accounting, checking of inventories, balancing of ration points, and the attendant filing and typing followed, for the Aides were now taking over these duties in an effort to relieve the hard-pressed dietitians.

At Children's Hospital we have one privilege not generally shared by those in other hospitals—the feeding of children. Ordinarily nurses take care of patients who cannot feed themselves, but with the present shortage of nurses, another opportunity awaited us, an opportunity to learn the psychology of feeding, through the feeding of helpless children.

The final hospital class served as a review of previous lessons, in anticipation of the examination. Preparation of attractive trays, proper temperatures of foods to be served, various types of hospital diets, the basic seven foods, and classification of fruits and vegetables as to their carbohydrate content were stressed.

The final session in the series again found the entire group together, ready for the examination, prior to which a representative of Milwaukee County Emergency Hospital gave a short talk on first aid. Permanent assignments followed within a week, with most of us remaining at the hospitals of our choice. A captain for each group was appointed by the dietitian, and assigned the duties of recording the number of hours the Aides work and acting as liaison agent between the lay chairman and the Aides. Aides notify the captain when they will be absent, whereupon the captain secures a substitute. At least 24 hours' advance notice of absence from duty is required.

The Milwaukee newspapers have given the Dietitian's Aide Corps generous publicity, and there is no doubt that many women will be interested in receiving similar training in classes which will be formed to supply other local hospitals now asking for this service.—*Mrs. Eunice Lindner Skupski, member, Dietitian's Aide Corps.*

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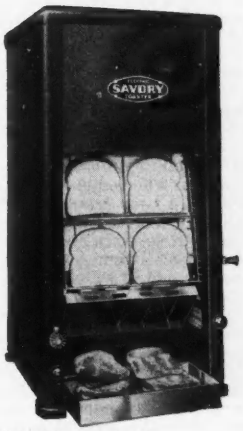
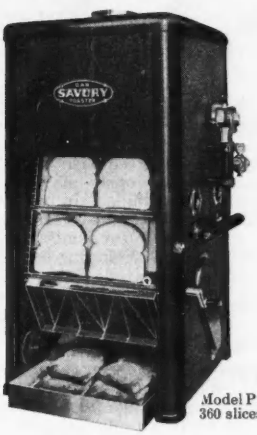
War-time production of these fine appliances has been uninterrupted with the result that today's Savory Toasters are better than ever—and **prompt deliveries** can be made to many civilian food service operators.



Model CT-2, all-electric, 360 slices per hour

Model PQ, gas-operated, 540 to 720 slices per hour

Model CT-4, all-electric, 540 to 720 slices per hour



Model PD, gas-operated, 360 slices per hour

Consider these advantages of Savory ownership—

3 to 36 slices of perfect toast per minute—sufficient to meet your peak requirements—at a cost of only pennies per hour.

Adjustable thermostatic controls assure steady production of evenly browned slices—light or dark as you prefer—without constant watching and waiting by the operator.

Years of trouble-free service and low maintenance cost. Savory Toasters are designed and built to withstand hard use.

Each slice of Savory toast has crisp, crunchy, outside surfaces while the centers are soft and tender. This is due to the *EXCLUSIVE* built-in pre-toasting chamber in which each slice is processed in moist warm air currents before it reaches the toasting elements.

All of these mean better toast for your patrons and are yours for a moderate investment. Ask your dealer or write us for details.

Savory

EQUIPMENT
division of TALON, INC.
128 Pacific Street **Newark 5, N. J.**

News Notes

Combined Issue of Journal. As indicated in this JOURNAL for February 1944, due to paper restrictions it has been necessary to combine July and August as has been done in this issue. For the present, then, it has been necessary to omit but one issue, that for August, in 1944.

Army Dietitians. Bill S.1808 has passed both the Senate and House, authorizing the temporary appointment as officers in the Army of the United States of members of the Army Nurse Corps, female persons having the necessary qualifications for appointment in such corps, female dietetic or physical therapy personnel of the Medical Department of the Army (exclusive of students and apprentices), and female persons having the necessary qualifications for appointment in such department as female dietetic or physical therapy personnel.

Veterans of 1917 and 1941 Form National Organization. A national organization of veterans of the two World Wars, popularly known as the "Retreads," but officially incorporated under the name of "Veterans of 1917 and 1941," was recently established by Comdr. Alfred M. Glickman of Camp Thomas, Davisville, R.I., according to the *Journal* of the American Medical Association for June 10. The list of 75 charter members includes the names of captains, commanders, and other high ranking officers, but no distinction of rate or rank appears, as all members enjoy the same rights and privileges. The purpose of the organization is to "maintain and enjoy the comradeship of its members; to uphold and defend the Constitution of the United States of America; to preserve memories and incidents of the two world wars fought to uphold democracy; to perpetuate the memory of its members who made the supreme sacrifice; to foster true patriotism; to maintain and extend the institutions of American freedom; to preserve and defend the United States from all her enemies whomsoever, and to consecrate the efforts of its members to mutual helpfulness and service of their country."

A movement has been started to create a suitable insigne to be worn by veterans of both wars.

Calla Van Syckle Appointed to Staff of Carnegie Institute of Technology. Miss Van Syckle, formerly Senior Consumer Relations Officer, OPA, is assuming her duties as head of the Home Economics Department, Margaret Morrison Carnegie College, Carnegie Institute of Technology, Pittsburgh, on September 1. Miss Van Syckle received her Ph.D. in economics from Iowa State College, where she minored in nutrition and home management.

Gladys Hills. Miss Hills, dietitian of the Vanderbilt Clinic of the Columbia-Presbyterian Medical Center, New York, from 1931 to 1941, and since then nutritionist for the Greenwich (Connecticut) Tuberculosis and Health Association, died June 12 at the Greenwich Hospital. Born in Exeter, New Hampshire, Miss Hills was a graduate of Teachers College, Columbia University, and well known in the field of dietetics. She wrote numerous magazine articles on the subject and had lectured widely to medical students. Miss Hills had also served on committees of the Greater New York Dietetic Association, A.H.E.A., A.D.A., and the New York City Department of Welfare.

Grace MacLeod Retires. Professor MacLeod of Teachers College, Columbia University, chairman of the Nutrition Committee of Greater New York, retires this year after 25 years of teaching at Teachers College. She becomes Professor Emeritus of Nutrition upon her retirement. Dr. MacLeod received her bachelor's degree in chemistry from Massachusetts Institute of Technology and her master's and doctorate from Columbia University. In 1919 she began her work at Teachers College as an instructor in nutrition. From then until the present, she has been active in the nutrition field. A fellow of the American Association for the Advancement of Science, a member of the American Chemical Society, the American Society for Biological Chemists, the American Institute of Nutrition, and the American Dietetic Association, Professor MacLeod has also served on the committees of numerous home economics associations, and is a member of the Journal Board of this JOURNAL. She is co-author, with Professor Clara Taylor, of the fourth edition of *Rose's Foundations of Nutrition*, and has contributed frequently to various journals and magazines. To honor Professor MacLeod on her retirement, the 1944 class of nutrition students are starting a "Grace MacLeod Loan Fund for Graduate Students in Nutrition at Teachers College."

Correction. On p. 334 of the May JOURNAL, in the abstract of an article from the *Journal of Biological Chemistry* entitled "The Influence of Crystalline Vitamin B_6 on Hematopoiesis in the Chick," B_6 should read B_c.

Rationing and Price Regulations. Ceiling prices to growers which will bring cantaloupes and other melons under price control for the first time will result in much lower retail prices than last year's extremely high prices, OPA has announced.

Housewives and others who collect waste kitchen fats will continue to be paid both red points and cash for all household salvage fats, even though all meats except the better grade of beefsteaks and roasts were made point-free May 4.

Reductions in ceiling prices for frozen Pacific Coast fish, averaging about 20% below current prices at all levels, were announced May 12. This is one of four changes made in a new amendment to the frozen fish and seafood regulation.

OPA has directed its district offices to set up two periods in which consumers may apply for their 1944 home canning sugar allotment. Consumers may obtain in the first period not more than 10 lb. per person. In the second period, those who need additional sugar may obtain an extra amount not to exceed, with the amount granted in the first period, a total of 20 lb. per person. Applications during the second period must include a statement showing the disposition of the sugar issued during the first period. Spare Stamp 37 from War Ration Book 4 must be included with the application for each person. The maximum amount of the home canning ration for the season remains at 25 lb., 5 lb. of which is available on Sugar Stamp 40.

An increase in growers' prices of asparagus for processing will be reflected in maximum prices for canned and frozen asparagus of the 1944 pack.

A new section added to GRO 5 (food rationing for institution users) provides that an institution user who commenced operations after January 1, 1944, and who has not been granted a reserve allotment prior to May 1, 1944, shall be granted this in an amount equal to one half of his bases for meal services and refreshments. Such reserve allotments shall be allowed when he applies for allotments for the period following the one in which he commenced operations.

Through Amendment 59 to GRO 5, schools and colleges participating in military training programs and feeding military personnel are supplied with procedures for disposing of stocks of rationed foods on hand when training activities are ended or reduced in scope. Effective May 10, schools where Army or Navy military training activities are being disbanded are authorized either to sell stocks of rationed foods obtained to feed military personnel or retain them for their own non-military feeding activities.

A ceiling price has been established for hydrogenated lard of 1½ cents per pound over the ceiling prices fixed for base or standard commercial refined lard, it was announced May 18. The price set is expected to reduce the cost to bakers and others who use this product.

Pickled, spiced and brandied fruits are to be returned to the list of rationed processed foods at the beginning of the July ration period.

More beef for use in hamburger and sausage was made available on a point-free basis May 24, eliminating the 5 ration points per pound previously charged at the trade level for carcasses of stags and block bulls. In order that there would be no question about inclusion of stag and block bull meat in point-free hamburger meat, the definition of hamburger was changed to the following: "ground from beef (excluding head meat), having a zero point value and from beef fat."

Maximum prices now in effect for ice cream and ice cream mixes will remain effective until August 23, OPA announced May 24. This represents the sixth extension of the temporary price adjustment provisions originally issued February 22, 1943, pending permanent action on the pricing of these commodities.

Processors' maximum prices for the 1944 pack of California and Arizona orange juice and blended orange and grapefruit juice will result in a retail price in New York City of about 25 cents for a No. 2 can of orange juice and about 23 cents for a No. 2 can of blended juice (50% orange, 50% grapefruit). Prices are also set for No. 3 cylinder cans and No. 10 cans at comparable levels. All of the 1943 pack of orange and blended juice was purchased by government procurement agencies. About half of this year's production, however, will be available for civilian consumption.

Maximum prices which have been established for watermelons will mean a sharp reduction at retail from last season's inflated prices.

Savings of approximately $1,500,000 to the consuming public are expected to result from the specific dollars-and-cents ceiling prices established for Limburger, Münster, and brick cheese by OPA at all levels except through retail stores, where it is sold under a fixed percentage markup.

For the first time specific dollars-and-cents ceiling prices have

HOW TO ADD INTEREST AND COLOR TO BREAKFAST TRAYS

When you think of it, there's really no sound reason why today's breakfast trays need be monotonous. For there are many happy touches to give sparkle and color to breakfast. For example, cereals swimming in milk, topped with gay fruits. Fresh red raspberries. Plump blueberries. Slices of golden peaches. These are just a few. And the individual package of KELLOGG'S PEP on the breakfast tray adds another interesting note. Here's promise of an extra-delicious cereal that's really good food. In fact, it's a better than ordinary cereal source of food essentials that protect well-being and help supply energy. PEP has more vitamin B_1 and vitamin D than any other nationally advertised wheat-flakes cereal. So it's a good idea to pep up breakfasts with PEP—made by Kellogg's in Battle Creek.

V-C-B

Saves on Cost of Citrus Fruit

Just add water to produce a pleasant fruity beverage approximating the Vitamin C potency and caloric value of fresh orange juice, at a standard cost of 54¢ a gallon!

Because of its palatability, economy and labor-saving convenience, many institutions had adopted V-C-B as a standard for administering Vitamin C, even before the present shortage and high cost of fresh citrus fruits.

Only one 4-oz. liquid portion of V-C-B beverage supplies individual daily requirements—1000 International Units —of Vitamin C and 50 calories. V-C-B is also valuable for fortifying fruit juices and beverages with Vitamin C.

Hermetically sealed in oxygen-free containers, V-C-B keeps indefinitely; there is no spoilage or waste. If you have not tried V-C-B, send for a trial order now!

ACCEPTED AMERICAN MEDICAL ASSN Council on Foods

V-C-B and all advertising claims for it are accepted by the Council on Foods of the American Medical Association.

SEND FOR YOUR TRIAL ORDER NOW!

Single 1 lb. 12 oz. cans...each	$ 1.40
1 Doz. 1 lb. 12 oz. cans...doz.	13.50
3 Doz. 1 lb. 12 oz. cans...doz.	13.25
6 Doz. 1 lb. 12 oz. cans...doz.	13.00

HILKER & BLETSCH COMPANY, VITAMIN PRODUCTS DIVISION
614 West Hubbard Street, Chicago 10, Illinois

been established on Colby cheese, washed curd or soaked curd cheese, and skim milk cheese. The action established a "standard of identity" for skim milk cheese, recommended by the industry, as follows: "Skim milk cheese means all cheese (including but not limited to Scarmorze cheese and Cacio Cavello cheese) made from cow's milk by the Cheddar, Washed Curd, Soaked Curd, Colby, Monterey or Provolone processes or by any minor variations of such processes and in any style, form and size, containing either more moisture or less milk fat, or, more moisture and less milk fat than moisture of 41% or milk fat of 50% in the water-free substance. Cheese and cheese products which are excluded from the provisions of this definition are: processed cheese of all kinds, cheese foods and spreads, baker's cheese, pot cheese, smearcase cheese, hand cheese, farmer's cheese, creamed cottage cheese, cottage cheese, and cream cheese."

New ceiling prices, effective June 5, covering 26 specifically named Italian-type cheeses, and all other cheeses made from cow's milk by the Provolone, Parmesan, and Romano processes or minor variations of these, bring them into balance with Cheddar cheese prices and the prices of other manufactured dairy products essential to the war effort, according to OPA, and will result in considerable savings to consumers. Ceiling prices have also been established for the first time on Monterey cheese and High Moisture Jack (also known as California Jack) cheese, as well as Blue (Bleu) and Gorgonzola cheeses.

Dollars-and-cents wholesale ceiling prices are being established throughout the country for the "dry groceries" which now have dollars-and-cents retail ceilings under the community price program, OPA has announced. These prices, like the retail ceilings, will be set by OPA district offices and will be uniform by community areas. They will be in effect wherever community retail prices are established by July 1. "Dry grocery" items include such foods as canned fruits and vegetables, coffee, sugar, cereals, soups, and dried fruits. The new ceilings will appear on a list, similar to the community retail ceiling price lists, which will be distributed in each area to wholesalers, retailers, and members of OPA price panels, through OPA district offices.

National Food Situation. West Coast packers were authorized by WFA in June to release an additional 12,000,000 lb. dried prunes from their 1943 production, for sale to civilians.

Maple sugar was produced in unusually large quantities this spring by the 10 principal maple-sugar states reporting to USDA. The production of syrup this year totaled 2,589,000 gal. (About 8 lb. sugar makes one gallon syrup.)

Cherry trees this spring gave promise of plenty, USDA reports. The California crop was expected to amount to 29,200 tons, 12,200 tons more than last year. Almost twice as much fruit from California Royal Anne trees was expected this year compared with last; Washington expected larger crops of both sweet and sour cherries, and Oregon considerably more sour cherries. In most of the other important cherry-producing states, prospects were generally favorable for both sweet and sour cherries. The May 15 *Food and Home Notes* (USDA) contains a good recipe for pickled cherries.

Since quantities of evaporated and condensed milk must go to the armed forces, civilian supplies are so short that they should be reserved for those who really need milk in these forms, suggests WFA. Especially should the use of canned milk for feeding dogs and cats be discontinued. "Infants and invalids first" is the motto suggested.

The *National Food Situation* for April stated that per capita food consumption in 1944 is expected to average substantially the same as last year, despite the use of about 25% of the total food output to meet war requirements. Prospects for civilian food supplies in the next few months are relatively good. For the year 1944 as a whole, civilian meat consumption will apparently be around 145 lb. per capita, 8 lb. higher than the estimated 137 lb. per capita for 1943 and 1942. In the last few months of 1944, civilian supplies will be reduced because of smaller total marketings and heavy military takings. Indications are that civilians will have at least as large a total supply of fruits and vegetables as was available last year. Prospective reductions in civilian supplies of the commercial canned goods are likely to be offset by large fresh supplies, particularly in the case of vegetables. The 1944 winter wheat crop is expected to reach 602 million bushels, 72 million more than in 1943. Total domestic wheat supplies, including spring wheat, will be more than adequate to meet all food requirements.

Retail prices of all foods combined, declined 2.2% in the 3-month period from mid-December 1943 to mid-March 1944. Prices in March 1944 show a decrease of 2.4% from March 1943 or an average decrease of 0.2% per month. This is the first time since November 1940 that there has been a decrease in the retail price index of all foods from the same month of the year before. The decline in prices of all foods was caused by sharp decreases in prices of eggs and certain fresh vegetables, which were partly offset by increased prices of other fruits and vegetables.

All restrictions on the farm slaughter of livestock and delivery of meat were removed by WFA May 26, revoking the requirement that farmers must have a permit to slaughter livestock and deliver meat to persons not living on a farm.

According to the *Livestock and Wool Situation*, present indications point to a record slaughter of cattle, calves, and hogs, and a near record slaughter of sheep in 1944.

WFA has asked canners to set aside 40% of their average annual production from their 1944 pack of canned vegetables for war use. According to the *Vegetable Situation*, the indicated acreages of the 4 principal processing vegetables expressed as percentages of the 1943 planted acreage are as follows: snap beans 96.1, green peas 102.5, sweet corn 101.5, and tomatoes 104.4. Prospective plantings of the entire 1944 crop of potatoes were indicated to be 7.3% smaller than the 1943 planted acreage, and about 10% smaller than the 1944 goal. Prospective plantings of sweet potatoes were indicated as about equal to 1943, and of dry edible beans and dry field peas about 7% smaller.

A maximum hourly rate of $1 and a maximum piecework rate of 4 cents per pound were established by WFA's Director of Labor for cherry pickers in 2 California areas, and rates of 90 cents and 4 cents, respectively, for other counties.

Unpolished rice is the official term for a new special grade of rice, formerly called undermilled rice, which mills have been turning out in larger quantities than usual since the war, according to WFA. This rice is graded between brown rice (with only the outer husk removed), and white polished rice, which has practically all the bran and germ portions removed by milling. Most of the unpolished rice is now selling in bulk.

A report on the nation's food situation by OWI, working in cooperation with WFA and OPA, was issued May 26 (OWI-3233). A few highlights from the report follow: "Our present food situation is as good as it is because within the last year people all along the food line from the plow to the plate did a good job of growing and conserving more food, and sharing food. We will probably have rationing of one type or another off and on until the war is won. Some of the cuts of the better grades of meats will probably be more difficult to secure, with the supply of most currently point-free meats remaining reasonably plentiful. A major factor which might cause WFA to request a restoration of point values on currently point-free meats is the possibility that the available supply may not be distributed evenly. The present point holiday on canned vegetables is only temporary. The civilian supply of canned fruits and juices for the year ahead will continue so low as to necessitate continuation of rationing. There will probably be 6 to 8% less butter for civilians and 15% less lard, but 12% more margarine and 6% more shortening and other edible oils. Prospects indicate that adequate supplies of sugar will be available for all essential needs, but no increase in household allotments now appears possible. Egg production this spring has been at an all-time high and the need for a continued high rate of civilian consumption remains. Civilians may expect less chicken this year than last. Regardless of the reduction in point value of many foods, the problem of securing farm labor and food processing labor remains critical. Civilian diet today is sufficient in calories, proteins, iron and vitamin A, but with little margin above the N.R.C. recommended allowances in the B vitamins and vitamin C. Special care, therefore, must be taken to encourage home production of such foods as tomatoes and to emphasize those foods which are good sources of riboflavin and niacin, such as milk, meat, and enriched cereals."

Amendment 2 to WFO 13 provides that, beginning August 1, all prescriptions for heavy cream must be approved by a local public health officer or the secretary of a county medical society. Also, the sale or delivery of so-called "filled" cream, containing more than 19% of all kinds of fat, will be prohibited. WFO 13 prohibits the sale of heavy cream containing more than 19% butter fat in order to conserve milk for more essential wartime uses. The order provided, however, that physicians might prescribe such cream in cases where it was important to the health of their patients. The present amendment broadens the definition of cream products to include aerated (air-expanded) cream, reconstituted cream, and those cream products to which sugar, condiments, spices, flavoring or similar ingredients have been added, and prohibits the sale of heavy cream or cream products to or use by hotels, restaurants and other public eating places, except for making ice cream. (Under WFO 8 the use of cream or other milk solids in the production of frozen dairy foods is limited.) In California, the District of Columbia, Minnesota, Montana and Nevada, where the milk-fat content of fluid cream is required by law to exceed 18%, dealers may deliver cream having a milk-fat content not exceeding the state legal minimum by more than 1%.

Corn meal and corn grits sold for human consumption in packages of 5 lb. or less and labeled "enriched" must be enriched by the addition of at least 1.2 mg. thiamin, 14 mg. niacin, and 11 mg. iron to each pound, and this must be so stated on the package, as stated in a release from OPA regarding ceiling prices of these products.

Lend-Lease Report. The *Fifteenth Report to Congress on*

The Easiest Way To Supply Vitamin D Dependably

IRRADIATED EVAPORATED MILK

When you prescribe *Irradiated* Evaporated Milk in babies' formulae, you are *doubly* sure that they will receive the rickets-preventing Vitamin D.

First, Irradiated Evaporated Milk always supplies this needed vitamin. *Second,* babies get it as regularly as feeding time comes, together with all the essential nourishment of fine milk.

Proved in clinical studies on thousands of infants, here is inescapable and effective antirachitic protection for normal infants.

No change in your regular antirachitic regimen is required nor suggested. Irradiation has not increased this milk's low cost.

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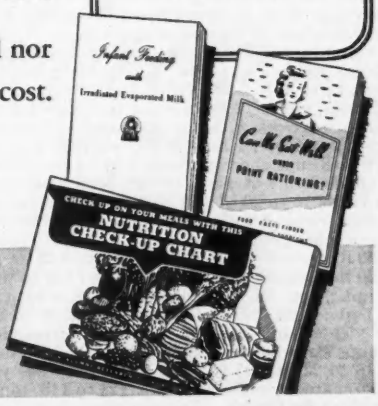
Approved for VITAMIN D upon periodic tests

DEPEND ON THIS SEAL

This Seal or mention of the Foundation's name on Irradiated Evaporated Milk labels guarantees reliable Vitamin D potency. This product is tested periodically in our own laboratories.

Let us send you these important booklets: "Infant Feeding with Irradiated Evaporated Milk," Nutrition Check-up Chart, and "Can We Eat Well Under Point Rationing?".



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Lend-Lease Operations, covering the period ended March 31, is available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, at 30 cents. Reports of operations under the Lend-Lease Act are transmitted to Congress by the President approximately every 3 months.

Food Containers. As it now stands, only maximum practicable conservation will ensure the job of packaging and shipping the nation's food supply during the coming season, according to the *Marketing and Transportation Situation*, USDA. This applies to all types of packages used. Ways and means of packaging more pounds of food with less poundage of critical materials have been studied and every possibility of redesigning containers has been explored. It is stated that every bag, box, crate, and metal container of any description that can be utilized for at least one more trip should be preserved. Growers will be obliged to depend to a great extent on second-hand containers. Second-hand packages are being purchased by shippers and growers in greater quantities than ever before. The release states that "no orders have been issued by WPB nor are any contemplated designed to curtail the production or packaging of critical foods. However, there is still a critical shortage of materials for containers, and every individual must assist with the salvage of waste paper, which plays such an important part in the manufacture of new containers."

Equipment. At a meeting of the WPB Commercial Equipment Advisory Committee, April 24, it was reported that needs of the armed services are being met but that there is an increased need for commercial cooking equipment for civilians since much of the old equipment is wearing out and now needs to be replaced. An increase in the number of applications for such equipment was attributed to comments in the press which indicated that materials were less critical and that the Office of Civilian Requirements and the Smaller War Plants Corporation and other government agencies were going to bring about increased production of civilian goods. The Committee suggested that the public should be impressed with the fact that materials such as steel and copper are not plentiful and that civilian production cannot be greatly expanded at this time because of the shortage of labor and packaging and other materials. Use of copper and copper base alloy as undercoating in the plating of flat tableware has been authorized by WPB in an amendment to Conservation Order M-9-c. Use of copper as an undercoating will materially increase the life of the product, according to WPB officials.

Picking Tomatoes. Picking tomatoes when immature in the belief that they will be ready to eat earlier has been shown by USDA to be a fruitless practice. At best, according to vegetable storage and shipping experimenters in the Department's Research Administration, this practice gained only one day in earliness of ripening, over tomatoes allowed to remain on the vines until the mature-green stage. In the case of the Gulf State Market variety of tomatoes grown in the experiments carried on in Mississippi, they reached the mature-green stage in about 27 days after the fruits had set.

The experimenters found a number of advantages resulting from allowing the tomatoes to grow to the mature-green stage, which is just before color turning: these fruits when ripened were of satisfactory quality in contrast to poor quality of those picked when immature; they lost less than half as much weight in ripening; fewer decayed; the yield per acre was greater; and they had a high vitamin C content. A mature (or mature-green) tomato is one that is still green but has reached a stage at which, if harvested then, it will ripen to a satisfactory degree.

Arithmetic for Canners. To help homemakers figure approximate yields of canned food from fresh, USDA offers the following, with the reminder that legal weight of a bushel varies in different states and that weights given here are average: 1 bu. (48 lb.) apples yields 16 to 20 qt.; 2½ to 3 lb. apples yields 1 qt.; 1 bu. (52 lb.) Lima beans in pods yields 6 to 8 qt.; 4 to 5 lb. Lima beans yields 1 qt.; 1 bu. (30 lb.) snap beans yields 15 to 20 qt.; 1½ to 2 lb. snap beans yields 1 qt.; 1 bu. (52 lb.) beets without tops yields 17 to 20 qt.; 2½ to 3 lb. beets yields 1 qt.; 24-qt. crate berries, except strawberries, yields 12 to 18 qt.; 5 to 8 cups berries yields 1 qt.; 1 bu. (50 lb.) carrots without tops yields 16 to 20 qt.; 2½ to 3 lb. carrots yields 1 qt.; 1 bu. (56 lb.) cherries as picked yields 22 to 32 qt.; 6 to 8 cups cherries yields 1 qt.; 1 bu. (35 lb.) sweet corn in husks yields 8 to 9 qt.; 6 to 16 ears corn yield 1 qt.; 1 bu. (48 lb.) grapes yields 16 to 20 qt.; 2½ to 3 lb. grapes yields 1 qt.; 1 bu. (18 lb.) greens yields 6 to 9 qt.; 2 to 3 lb. greens yields 1 qt.; 1 bu. (48 lb.) peaches yields 18 to 24 qt.; 2 to 2½ lb. peaches yields 1 qt.; 1 bu. (50 lb.) pears yields 20 to 25 qt.; 2 to 2½ lb. pears yields 1 qt.; 1 bu. (30 lb.) green peas in pods yields 12 to 15 pt.; 2 to 2½ lb. peas yields 1 pt.; 1 bu. (56 lb.) plums yields 28 to 40 qt.; 1½ to 2 lb. plums yields 1 qt.; 1 bu. (40 lb.) squash yields 16 to 20 qt.; 2 to 2½ lb. squash yields 1 qt.; 24-qt. crate strawberries yields 12 to 16 qt.; 6 to 8 cups strawberries yields 1 qt.; 1 bu. (55 lb.) sweet potatoes yields 18 to 22 qt.; 2½ to 3 lb. sweet potatoes yields 1 qt.; 1 bu. (53 lb.) tomatoes yields 15 to 20 qt.; 2½ to 3 lb. tomatoes yields 1 qt.

New Uses for Guava. Because guava has a vitamin C content from 10 to 20 times that of other fruits used in making jams and jellies, the War Department is asking that it be added to apples, oranges, apricots, peaches, grapes, and other fruits used in making spreads, according to the Office of the Coordinator of Inter-American Affairs. Ten per cent of guava added to other fruits in the preparation of jams and jellies more than doubles the vitamin C content of the mixture, it is stated. As the vitamin C content of the fruit varies widely in accordance with variety and degree of ripeness, scientific cultivation might produce high-yielding strains with an even higher vitamin content than the wild fruit now largely used in Latin-American countries.

Guavas, sometimes known as *guayaba*, flourish throughout tropical America and have been introduced successfully in India and South Africa. A factory was recently built in South Africa to dehydrate the fruit and convert it into a powder used in supplementing the diet of British soldiers. The manufacture of guava jellies and jams is an important industry in Cuba, Puerto Rico, Brazil, and other American countries. Brazil alone has more than 400 small factories producing guava jellies for the domestic market, and a United States company has established a plant in Mexico to quick-freeze the pulp for use in the United States in the manufacture of ice cream and ices.

New Marmalade. In a few eastern cities a new commercial marmalade made of cranberries, oranges, lemons, and sugar, with no preservatives or acids added, is now on sale. Only 100,000 cases of this cranberry-orange marmalade were put up this year. After the war the cranberry pack is expected to be large enough so that the marmalade can be distributed to markets generally. The combination of fruits is said to produce a marmalade with considerable tang and a rich, reddish color.

Bananas. Fresh bananas are continuing to come in, many by rail from Mexico and others on small coastwise freighters without refrigeration, according to the May 8 *Food and Home Notes*. Many are smaller than those generally for sale before the war because growing practices in certain areas have been modified by wartime conditions. Since the war, dried bananas, imported from Brazil and Central America, have been marketed as powder, flakes, or slices. The dried sliced bananas are known to the trade as "banana figs." These products are all made from the sweet dessert-type banana and are for use in such dishes as banana cream pie, cake, and custard as well as in banana milk shakes and ice cream. Also on the market in small quantities is banana flour, made from the plantain-type banana which is more starchy and less sweet. Banana flour is used much like rice, potato, or wheat flour.

Recent cooking tests of banana powder, flakes, and slices by home economists of USDA show that both powder and flakes are satisfactory substitutes for fresh bananas in recipes calling for mashed or sieved bananas. Flakes and powder are light in color and have a mild banana flavor. The banana slices or "figs," on the other hand, are darker in color before cooking, have a stronger, oilier flavor, and need soaking in water before using. Even after soaking, the tests showed that they are not easily pressed through a sieve, as fresh bananas are, and that they leave considerable pulpy waste. Dried bananas in any form easily absorb moisture from the air and when moistened may mold or ferment; they should always be kept in a tightly closed container.

Home Quick-Freezers. Before investing in "deep" or "quick" freezing equipment for preserving food at home, be sure it is in good condition and not too high in price, the USDA and OPA advise. Demand for such equipment is heavy and new freezers are not being manufactured. Many of the freezers now for sale came from retail stores where they were used as beverage dispensers or for ice cream and other frozen products now being manufactured in smaller amounts or going largely to the armed forces. Some of the equipment is not in usable condition and cannot be repaired, because new parts are not being made and skilled repairmen are lacking.

Nutrition Program Materials. A release entitled "Meat Buying Under Price Control," obtainable from the Group Services Branch, Department of Information, OPA, Washington, contains information for the housewife concerning the provisions of the meat price regulation which protect them against being charged over-ceiling prices for meat, including: the requirement for uniform wholesale and retail cuts throughout the United States, the limitation on the amount of fat that may be left on retail cuts, and the grade specifications and marking.

A 44-page catalogue of films reviewed and approved by the Committee on Evaluation of Motion Pictures, New York City Food and Nutrition Program, is available from the Department of Health, 125 Worth Street, New York 13, for 25 cents. The title of the publication is "Approved Films on Food and Nutrition."

"Experiment Station Research on the Vitamin Content and Preservation of Foods" (USDA Misc. Pub. 536) is available from the Government Printing Office, Washington, for 10 cents.

Report on Film Equipment Survey. The Motion Picture Bureau of the Metropolitan Life Insurance Company's Welfare Division, 1 Madison Avenue, New York, has published the results of a

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Increases Nutritional Needs

During periods of acute febrile disease, dietary adjustment must be made to satisfy the change in nutritional demands. Protein requirements are increased 50 to 100 per cent, caloric expenditure is raised because of increased heat loss, and vitamin needs, especially those of the water-soluble groups, are greater. Only by fully meeting these altered requirements can recovery be hastened, can convalescence be shortened, and the usual state of lethargy reduced in severity.

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CARBOHYDRATE	30.0 Gm.	62.43 Gm.	VITAMIN D	405 I.U.	480 I.U.
FAT	2.8 Gm.	29.34 Gm.	THIAMINE	.9 mg.	1.296 mg.
CALCIUM	.25 Gm.	1.104 Gm.	RIBOFLAVIN	.25 mg.	1.278 mg.
PHOSPHORUS	.25 Gm.	.903 Gm.	NIACIN	3.0 mg.	5.0 mg.
IRON	10.5 mg.	11.94 mg.	COPPER	.5 mg.	.5 mg.

*Each serving made with 8 oz. of milk; based on average reported values for milk.

survey of social, health, and safety agencies to discover how many had access to or owned equipment for showing films, and what type of equipment they had—sound or silent, 35 mm. or 16 mm. film strip, or glass slide projectors. Replies showed that agencies have more 16 mm. projectors, both sound and silent, than any other equipment. Schools of medicine and nursing own most of the glass slide projectors. Further details may be obtained from the Metropolitan Motion Picture Bureau, at the above address, which will also furnish information regarding sources of films on particular subjects to agencies upon request.

Flavoring Cakes. Vanilla and other extracts give a more even and lasting flavor to cakes and cookies if they are added to the fat when it is being creamed, home economists of USDA report as a result of recent mixing and baking tests. Most flavoring extracts are essential oils which combine with and are held in by the fat.

Dental Caries. To determine the practicability of mass protection against dental caries by adding fluorine to public drinking water supplies, a long-range demonstration has been instituted in Newburgh and Kingston, in cooperation with local authorities, by the New York State Department of Health. Dental examination will be made annually of all 5 to 12-year-old school children, and the results made available to the school superintendents each year. It is reported that the parents in Kingston have promised that their children will forego fluorine for the 10-year period to provide a control group for Newburgh. The latter town will have the fluorine concentration increased from 0.12 part per million to 1.0 part per million. Examinations of salivas of a sample of the school populations will also be made to ascertain the amount of Lactobacillus acidophilus present. Pediatric examinations will be made of a sample of the child populations, including a general physical examination, urinalysis, and x-ray films of the long bones and centers of ossification.

Vitamin A Deficit. The Fish and Wildlife Service of the Department of the Interior recently warned that the nation faces a vitamin A deficit and that the soupfin shark fishery, chief United States source of vitamin A, apparently is being rapidly depleted, according to the May 6 *Journal* of the A.M.A. Indications are that the consumption of vitamin A in this country now exceeds production, the service said. The soupfin shark has an exceptionally large liver, the oil of which contains the highest known natural concentration of vitamin A of any samples taken in the United States fisheries. Other shark livers are also of some importance to processors, but vitamin A concentrations in them are considerably lower. The soupfin shark fishery was increasing before the war as a result of the generally rising use of vitamin products. With the advent of war, which cuts off foreign sources of supply, the price of soupfin shark livers rose to a high point of $9.25 a pound at one time. The price was 18.6 cents a pound in 1937. The current price runs from $6 to $7 a pound.

Service Women's Health. Health among uniformed women of the armed forces is at a high level, and the average Wac, Wave, Woman Marine, or Spar improves physically after her enlistment, OWI states, on the basis of data from the armed forces. Waves have increased their weight by an average of 5 lb. and were found to be without nutritional deficiencies in clinical tests, according to U. S. Navy findings in a test group of 6400. In another test group, comprising 2000 Waves, posture and foot defects showed improvement after a period of training. Decided improvement in posture and carriage was accomplished through training. Women Marines show a gain of 5 to 6 lb. in weight after entry into the Women's Reserve.

Health safeguards for Wacs, Waves, Spars, and Women Marines include preventive measures, established through inoculations, physical training and proper food, good housing and living conditions, and proper recreation, according to Army and Navy officials. Those who require it, receive ample, prompt medical or hospital care, the report states.

Army Nurse's Aides. Early in May, the Red Cross and Army Nurse Corps reported that Red Cross Nurse's Aides assisting the Army Nurse Corps would be known as Army Nurse's Aides and would wear distinctive arm insigne. Although Red Cross trained, the Army Nurse's Aides will receive pay. The first group was organized in the Eighth Service Command in Texas.

Junior Dietitian's Aides. A group of Junior Dietitian's Aides was trained at Union Memorial Hospital, Baltimore, this spring. According to Alice E. Jané, director of dietetics, these Aides were most responsive to the need for assistance over the weekends and during the Easter holidays, and they have proved not "too young to realize their responsibilities."

Summer School Lunch Course at University of Illinois. A special course in "Problems in School Lunch and Industrial Feeding" is being conducted for home economics teachers and others during the annual 8-week summer session which began June 12.

National Restaurant Association. The association's *Educational Department Bulletin*, May 6, contains additional prize recipes for no-point, low-point dishes that have proved popular in member restaurants where they are served.

A Victory Gardener's Handbook on Insects and Diseases. Prepared to aid the gardener in identifying the more common insects and related forms and the general diseases that attack vegetable gardens in the United States, this exceedingly useful bulletin also presents simplified directions for the preparation and application of the insecticides and fungicides recommended. It has been found necessary to adjust or change some of the recommendations appearing in previous publications, owing to the necessity of conserving certain materials, such as rotenone and pyrethrum, which are scarce, due to war conditions. The various pests which attack each vegetable and fruit are pictured and described in detail, so that they are easily recognizable. Tables of measures are included and data on spraying and dusting equipment. Copies of this bulletin (Misc. Pub. 525) may be obtained on application to the U. S. Department of Agriculture, Washington.

Penicillin. The Chemical Bureau of WPB published May 4 (WPB-5617) the names of the more than 1000 United States hospitals which have been selected to serve as depot hospitals for the limited civilian distribution of penicillin, plans for which were announced recently. The distribution is to be handled through the Office of Civilian Penicillin Distribution which has been established in Chicago with Dr. John N. McDonnell as director. A brochure on penicillin and its uses is available free on application to the Lederle Laboratories, 30 Rockefeller Plaza, New York 20. According to the *Journal* of the A.M.A. for May 27, the Hospital for Joint Diseases, Madison Avenue and 123 Street, New York 35, invites the admission of patients with acute and chronic osteomyelitis for treatment with penicillin.

Science Writers Appointed as Civilian Consultants. Maj. Gen. Norman T. Kirk, Surgeon General of the Army, has appointed the following science editors as civilian consultants: David Dietz, Scripps Howard Newspapers, Cleveland; James C. Leary, Chicago *Daily News;* Robert D. Potter, *American Weekly,* New York; and William L. Laurence, New York *Times;* as well as Lawrence C. Salter, associate director of press relations, American Medical Association, Chicago. The men, who are also members of a subcommittee of the Division of Medical Sciences of the National Research Council, will work with the Surgeon General and his staff in the preparation of information for the public on new developments in medical research in the Army.

Hazel K. Stiebeling Succeeds Dr. Sherman as Chief, Bureau of Human Nutrition and Home Economics. According to an announcement released May 16, Secretary of Agriculture Wickard has appointed Dr. Stiebeling to succeed Dr. Henry C. Sherman, effective June 30, when Dr. Sherman was to return to Columbia University to resume his duties as professor of chemistry.

Dr. Stiebeling joined the staff of the Bureau in 1930. For many years she headed the work in food economics and developed the techniques for making food consumption surveys, studying food habits, appraising the adequacy of the diets of groups of people, and setting up practical nutritional goals in terms of everyday foods. In September 1942 she was appointed assistant chief of the Bureau. In 1943 she was granted the Borden award for her contributions to the knowledge of dietary habits in the United States.

Born on a farm near Haskins, Ohio, Dr. Stiebeling received her B.S., M.A., and PhD. degrees at Columbia University. She has been school supervisor in home economics in Ohio, supervising teacher of home economics at Kansas State Teachers College, Emporia, and instructor in nutrition and research assistant in food chemistry at Columbia University.

Appointment of Marion W. Isbell. The appointment of Mr. Isbell, Chicago restaurant executive, as head of the OPA Institutional User or "Restaurant" Rationing Branch, was announced May 10 by Walter F. Straub, director, Food Rationing Division, OPA.

Dr. Paul B. Dunbar on May 6 was named Commissioner of Food and Drugs by Federal Security Administrator Paul V. McNutt to fill the vacancy caused by the retirement of Commissioner Walter G. Campbell.

P. Mabel Nelson Appointed Dean. Dr. Nelson, head, Department of Foods and Nutrition, Iowa State College, has been appointed dean of the Division of Home Economics, succeeding Genevieve Fisher, who retires September 1. Dr. Nelson, who received the doctor of philosophy degree in physiological chemistry from Yale University in 1923, joined the faculty of Iowa State College the same year and became head of the Department of Foods and Nutrition in 1926. She has served on the college committee on graduate study since 1926 and is head of the foods and nutrition subsection, home economics section, Iowa Agricultural Experiment Station. She is also chairman of the State Nutrition Council and of the North Central States cooperative project, "Nutritional Status of College Women."

Canadian News. Kathleen Jeffs, deputy director, Food Administration, R.C.A.F., has been promoted to Wing Officer, equivalent to Wing Commander. She is the third R.C.A.F. Women's Division officer to hold this rank, according to the Canadian Home Economics Association *Newsletter*.

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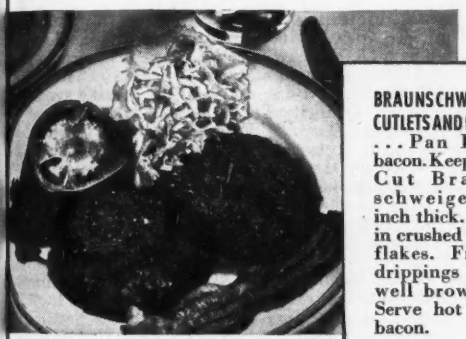

BRAUNSCHWEIGER CUTLETS AND BACON . . . Pan Broil bacon. Keep Hot. Cut Braunschweiger ½ inch thick. Roll in crushed cornflakes. Fry in drippings until well browned. Serve hot with bacon.

MEAT PIE . . . Add diced New England (Cooked Specialty), cooked diced carrots and potatoes, and sliced onions to gravy or brown sauce in casseroles. Bake. Top with mashed potatoes or baking powder biscuit.

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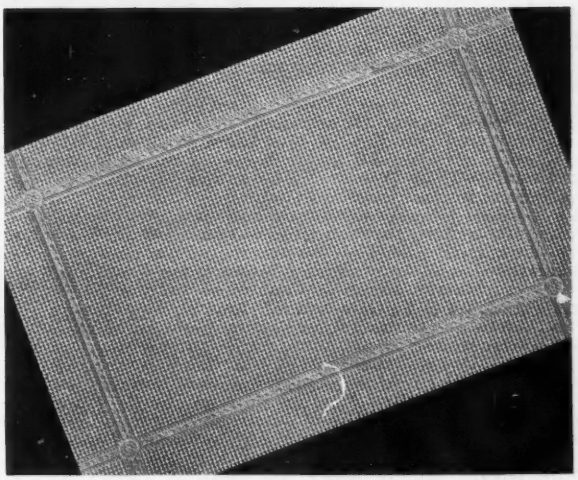

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economics through the Faculty of Medicine, is the University of Montreal, which is French-Canadian. Dr. G. Gosselin, professor of biochemistry and director of the Laboratory of Nutrition, was chairman of the committee which discussed the need and planned the course. In July 1942 the Institute of Nutrition and Dietetics was established, offering a 4-year course leading to a bachelor of science degree in home economics with a major in foods and nutrition. The present course includes, among other subjects, experimental cookery, diet therapy, and institution management.

Cleveland Dietetic Association. Elizabeth Perry, City Hospital, writes that the association's program for recruiting dietitians, presented in detail in the November 1943 issue of this *Journal*, was recently completed. At the close, open house was held in the dietary departments of the various hospitals, City Hospital entertaining 40 students who were definitely interested in the subject of dietetics.

Connecticut Dietetic Association. At the annual spring meeting, June 1, the program included an address on "Foreign Food Relief," by Dr. Helen S. Mitchell, formerly chief nutritionist, Office of Foreign Relief and Rehabilitation Operations; and a discussion on "Duties of an Army Dietitian."

Second Lt. Suzanne Carion, Fort Jackson, Columbia, South Carolina, was married in February to S/Sgt. Rowland M. Dinwoodie, stationed at Fort Jackson. Marjorie Pape, assistant dietitian at Hartford Hospital, was married March 18 to Lt. Chester Weed.

Recent appointments include: Mrs. Edith Cushman, FDA, as supervisor of school lunches, Department of Education, Hartford; Katherine O'Brien, Lucille Stearns, Mrs. Louise Preble and Marguerite Ruggles, to Hartford Hospital; Rosemary Regan, to New Britain Hospital; Mona Wolcott, to Greenwich Hospital; and Virginia Nelson, to Manchester Hospital.

Stella Maisner, formerly assistant dietitian at New Britain Hospital, is now an Army dietitian attached to an Army Air Force training center; Evelyn Belmont, assistant dietitian at Greenwich Hospital, enlisted as an Army dietitian March 15 and is stationed at Fort Devens; Marylou Rousseau, Connecticut Dairy and Food Council, is stationed at La Gare General Hospital, New Orleans.

Dallas Dietetic Association. The following graduates of Texas State College for Women are now in the Army: Sybil Schlottman, Ashburn General Hospital, McKinney, Texas; Eila Beth Andrews, General Hospital, North Africa; Crystine Adams, General Hospital, England; Helen Slimp, Station Hospital, North Africa; Evelyn Dershimer, General Hospital, Iran; Marjorie E. Minor, Station Hospital, Australia; Rebecca Fredlock, Norman General Hospital, Longview, Texas; and Ruby David, Station Hospital, New Delhi, India.

Mrs. Jane Sims, formerly dietitian at Texas Wesleyan College, Fort Worth, has received her commission and is now stationed in an Army hospital. Lt. Hannah B. Murphy, stationed at Orlando, Florida, was married November 24, 1943, to Mr. Lewis E. Ruth of Wichita, Kansas.

Civilian appointments include the following: Drewsilla Beams, Hillcrest Memorial Hospital, Waco, to Baylor University Hospital, Dallas, with Thelma M. Cox, Ila Mae Rinn, and Marjorie May as assistants; Rose Richter, Methodist Hospital, to Bradford Memorial Hospital for Babies, Dallas; Ruth Jones, to Methodist Hospital; Mrs. Edith Darling McKinney, Baylor University Hospital, to Southern Methodist University; Joyce Kraege, to Texas Children's Hospital; Grace Gober, to Cook Memorial Hospital, Fort Worth; Martha Shaw, to Hendrick Memorial Hospital, Abilene; and Ernestine Mangold and Ada Sparkman, to City-County Hospital, Fort Worth, as head dietitian and assistant dietitian, respectively. Mrs. McKinney, in addition to her course at Southern Methodist University, also teaches diet therapy at Methodist Hospital, and has continued her classes in dietetics at Baylor University.

Illinois Dietetic Association. The second annual meeting was held at the Knickerbocker Hotel, Chicago, March 18.

A special meeting of dietitians from Indiana, Michigan, Wisconsin, and Illinois, under the direction of Ella M. Eck, was held during the Tri-State Hospital Assembly at the Palmer House, Chicago, May 10–11.

Julia Thompson, who recently enlisted in the Waves, is now stationed at Great Lakes Naval Academy. Newly appointed Army dietitians include Betty Ann Hanley, Mitchell Meggers, and Murlyn Rodger.

Civilian appointments have been announced as follows: Marjorie Andrews, Elizabeth Brenden, Frances Houck, Rose Marie Steil, and Jean Parry, to Wesley Memorial Hospital, Chicago; Anne Spencer, to Evanston Hospital, and Bernice Lane to Alton Hospital; also Alicia Ann Mitchell, Clara Kurtz, Frances Compton, Dorothea Johnson, and Louise Kallenberg, to Cook County Hospital; Sophia Heend, to Mt. Sinai Hospital; Elizabeth Sears to Billings Hospital; Marie Procopio to St. Luke's Hospital; Vivian Lippert to Michael Reese Hospital; all of Chicago.

Indiana Dietetic Association. Recent meetings included the following: a panel discussion on "Objectives for the Student Nurses' Dietetic Curriculum," led by Dr. Helen Hunscher, chairman, Professional Education Section, A.D.A., with members of the League of Nursing Education and the dietetic association as participants; and an address on "U. S. Public Health Inspection of Public Eating Places." Newly elected officers are: president and delegate, Rosemary L. Lodde, Indiana University Medical Center, Indianapolis; vice-president, Grace McMahon, Ball Memorial Hospital, Muncie; secretary, Ruth I. Madsen, Methodist Hospital, Indianapolis; treasurer, Margaret Dunham, Indiana University Medical Center.

Kansas Dietetic Association. The program for the annual meeting at Topeka, March 18, included: a report from the State Nutrition Committee by Dean Margaret Justin, Mary Smull, Mrs. Dora Aubel, Hazel Thompson, and Gertrude Allen; report of a nutrition study by Mrs. Freda Vietor, Kansas City Board of Public Utilities; report of work on soybean, peanut and cottonseed products at Kansas State College, by Dr. Gladys Vail; "Prospects for the Future in Rationing," C. R. Boyle, Kansas City; "Our Profession, Past, Present and Future," Nell Clausen, President, American Dietetic Association; "The Place of Home Economics in the War and Postwar Period," F. L. Schlagle, Superintendent of Public Schools, Kansas City; "Food Problems in Northern China," Dr. Martha M. Kramer, Kansas State College; and an address by Lt. Katherine Manchester, assistant to Maj. Helen C. Burns, Office of the Surgeon General.

Officers for 1944 are: president, Audris Rife, University of Kansas; president-elect, Mrs. Ruth Hecker, Wyandotte High School; vice-president, Eugenia Sanderson, Halstead; secretary, Mrs. Alice Coolbaugh Halter, Bethany Hospital; treasurer, Frieda Antener, Independence; delegate, Hermina Zipple, University of Kansas.

Michigan Dietetic Association. The program of the annual meeting at Ann Arbor, April 29, included the following subjects and speakers: a report on Lansing's "Clean the Plate" program by Sylvia Hartt, executive secretary, Michigan Nutrition Committee; "Food Purchasing," Mr. Waldo Buss, assistant purchasing agent, University of Michigan; "Quantity Food Production," Margaret O'Connell, Harper Hospital, Detroit; "Equipment," Inez Bozarth, director of Lawyers' Club, Ann Arbor; "Sanitation and Care of Food and Dishes," Kathleen Hamm, Residence Halls, Ann Arbor; "The Individual and Political Morality," Harold M. Dorr, Ph.D.; and "National Aspects of the Nutrition Program," Dr. H. B. Lewis, University of Michigan. A panel discussion on "Objectives for Teaching Student Nurses" was led by Dr. Helen Hunscher, Western Reserve University, with Dr. Gladys Everson, Wayne University, Ethel Heaberlin, St. Mary's Hospital, Marie Pattani, Harper Hospital, Mrs. Marjorie Shepperd, Henry Ford Hospital, and Kathryn Barry, University Hospital, as participants. Presiding officers included Mable MacLachlan, University Hospital; Mary M. Harrington, Harper Hospital; Margaret King, Ford Hospital; and Adelia M. Beeuwkes, University of Michigan Hospital.

Milwaukee Dietetic Association. Miss Brusse, executive secretary to the state nutrition chairman, and Mrs. Austin, regional director of nutrition for OCD, met recently with members of the Milwaukee Dietetic Association to discuss nutrition problems and programs. Milwaukee County's program was compared with that of other sections of the state and it was found that the county led other communities in nutrition activities. There are now 113 Red Cross Nutrition Courses in operation. Twenty-eight instructors taught 48 classes or a total of 240 hours. Three canteen classes are in operation and three have been completed. Ten nutrition instructors aided in teaching classes in home nursing for a total of 55 volunteer hours. The total volunteer hours in all departments amounted to 435. At present over 1000 persons are enrolled in nutrition classes throughout Milwaukee.

Heads of vocational schools, dietitians, nutritionists, and industry executives met recently at the Schroeder Hotel to discuss absenteeism, and the nutritional status of industrial workers. At this meeting the job instructor program of the War Manpower Commission was endorsed for dietitians and the course has been taken by dietitians at the following hospitals: St. Luke's, St. Mary's, Mt. Sinai, and Milwaukee County Hospital.

Members of the State Nutrition Committee have appeared at vocational guidance meetings in high schools, presenting the field of nutrition as a vocation. Plans are being made to organize a cooperative effort in food preservation with extension workers.

Minnesota Dietetic Association met at the St. Paul Hotel, May 16. The program included: H. S. Adams, Division of Sanitation, University of Minnesota, "Sanitary Aspects of Food Handling"; Florence Smith, St. Mary's Hospital, Rochester, "New Trends in Special Diets"; Harriett S. Warmington, Veterans Facility, report as delegate to the national convention; panel discussion, "Evaluation of Examination Questions for Nurses," led by Sister James Agnes, St. Catherine's College.

Presidents of the three local dietetic associations in Minnesota

Summer Heat and The Adequate Breakfast

Nutritional requirements are not lessened by the advent of hot weather. In fact, the daily need of certain vitamins and minerals appears increased by heat and resultant loss of water, especially through perspiration. Hence foods for the summer dietary must be carefully chosen, not only for nutritional value, but also with an eye to their specific dynamic action.

Hence cereal breakfast foods (whole-grain, enriched, or restored to whole-grain values of thiamine, niacin, and iron) prove especially advantageous in the summer breakfast. They make an important contribution to the satisfaction of virtually every nutritional need. They are easily digested, and utilized almost quantitatively. Their specific dynamic action quotient is notably low. Their variety of form and taste is such that cereals need never jade the appetite.

When 1 ounce of cereal is served with 1 teaspoonful of sugar and 4 ounces of whole milk, this palatable combination of cereal, sugar and milk represents the following nutritional values, based on composite averages:

Calories	**205**
Protein	**7 Gm.**
Carbohydrate	**33 Gm.**
Fat	**5 Gm.**
Thiamine	**0.18 mg.**
Riboflavin	**0.30 mg.**
Niacin	**0.84 mg.**
Calcium	**0.16 Gm.**
Iron	**1.29 mg.**

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discussed the activities of their groups as follows: Bertha Haugseth, that of the Lakes Dietetic Association; Sybil C. Christenson, Rochester Dietetic Association; and Alberta Gurtler, Twin City Dietetic Association.

Mrs. Winifred H. Erickson, president of the state association, presided at the business meeting.

Dr. Eva Donelson, chairman, Community Education Section, announced the following speaker and subject for the May meeting of the Twin City dietitians: Dr. Ruth Grout, assistant professor, preventive medicine, "Schools and Community Together for Better Health."

Missouri Dietetic Association. Lt. Frances Gillespie, formerly of Barnes Hospital, is on duty at the Station Hospital, Camp Carson, Colorado.

Lt. Frances Moss, formerly at Menorah Hospital, is stationed at New Caledonia.

On April 13 Mary Barber, food consultant to the Secretary of War, spoke on "Army Food Overseas" before a meeting sponsored by the Women's War Council of St. Louis.

The St. Louis Dietetic Association, together with the HEWIBS and home economics teachers of St. Louis, directed a snack-bar as part of a program designed to assist the Fifth War Loan drive.

Mrs. Vesta Odell and Mrs. Theodora Stebbins, as representatives of A.D.A., attended the annual meeting of the Missouri Home Economics Association in Columbus, April 28.

Hildegarde Knopp, graduate of the approved training course, University of Kansas Hospital, has received an appointment at Mt. Sinai Hospital, New York, and Wilma Reed, St. Margaret's Hospital, Kansas City, is now assistant dietitian at Menorah Hospital.

Elisse Tagge, Barnes Hospital, was married May 13 to Dr. Dallas Anthony, assistant resident in medicine at the same hospital.

Mrs. Eunice Weber Roller, formerly of St. Luke's Hospital, announces the birth of a daughter, February 22.

New Hampshire Dietetic Association met with the New Hampshire Home Economics Association in Manchester, May 6. Mrs. Bethel B. Ross, assistant supervisor, community school lunch program (FDA), public schools of Boston, spoke on "The Organization of the School Lunch Program"; Thurston V. Kalijarvi, executive director, New Hampshire State Planning and Development Commission, Concord, discussed "Postwar Planning in New Hampshire."

Texas Dietetic Association. The first day's program of the annual meeting, Austin, May 4–5, included discussions on economic problems in wartime, the need of dietitians in the Army, rationing, and other subjects of primary importance. "Wartime Impetus in Dietetics" was presented May 4 under the following topics: "Army Hospitals," Lt. Behlan: "Community Nutrition," Helen Stacey, Children's Bureau, Washington; "Hospitals," Maniza Moore, President-Elect, American Dietetic Association; "School Lunch," Rosa Spearman, Dallas public school lunchrooms; "College Feeding Service Units," Mozelle Craddock, Texas Technological College; "Industry," Mildred Bonnell, regional industrial nutritionist, FDA. The dinner speaker was Major Paul K. Smith, U. S. Air Corps, and his subject, "Emergency Food and Water Requirements for Air Forces."

The program on May 5 included the following: "Stretching Meat Points," Jessie Cline, National Live Stock and Meat Board; "Dehydrated Food," Dr. Gene Spencer; "Frozen Foods," Dr. Luis Bartlett; and "Converted Rice," Dr. Harwell, University of Texas. Miss Moore was the luncheon speaker. The Central Texas Dietetic Association was hostess to the association during the convention.

Recent appointments among the South Texas group include: Ernestine Mangold, Jefferson Davis Hospital, Houston, to City-County Hospital, Fort Worth; Mrs. Ruth Serna Sipek, Jefferson Davis Hospital, to Methodist Hospital, Brooklyn, New York; Berneice Newsom, graduate of the student dietitian training course, University Hospital, Oklahoma City, and Lucille Hasiger, graduate of the course at Mercy Hospital, Chicago, to Jefferson Davis Hospital; Marie Saunders, to Hermann Hospital; and Gladys Lyons Allbritton, to Memorial Hospital.

Mrs. Irene Pope Hardy who has been with the Junior League for a number of years is now on the staff of Rice Institute, Houston.

Antoinette Bracher has joined the Waves and is stationed at a recruiting station in New Orleans.

Frances Lowe is teaching dietetics to student nurses at Memorial and Methodist Hospitals.

Margaret Johnson, assistant dietitian, Memorial Hospital, was married in January to Mr. Charles C. Hockisch, formerly mess sergeant with the armed forces in the Aleutian Islands.

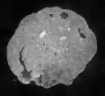
News From Our Advertisers and Exhibitors. For outstanding production in food processing, the enviable "A" award flag of WFA was presented to Mr. Frank Gerber, *Gerber Products Company*, April 14, by Comdr. L. A. Ketterer, U. S. Naval Training Station, Great Lakes. Commander Ketterer praised the company for their ingenuity in adapting machinery and rebuilding old equipment, for helping to save important materials, and for cooperation with farmers and the Government. The award is granted on a yearly basis only to food processors who meet rigid requirements in regard to quality and quantity of production, and management and labor relations.

A recent issue of the "Food and Nutrition" bulletin, published by the *National Peanut Council, Inc.*, C and S Bank Bldg., Atlanta 3, Georgia, contains a number of attractive recipes such as peanut butter salad dressing, fish casserole with peanut sauce, and toasted peanut loaf. Peanut butter, it is stated, is in abundant supply and can be found in economy-size jars in a variety of roasts, grinds, and brands, at reasonable prices. WFA urges a greater use of peanut butter through its no-point, low-point campaign, and with the profuse crop of summer garden vegetables, peanut butter dressing should make a welcome salad accompaniment.

Mead Johnson & Company, Evansville, Indiana, writes as follows regarding summer diarrhea in babies: "Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 8 level tablespoons of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. Three to 6 teaspoons of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies." Samples may be obtained upon request.

Economics Laboratory, Inc., Guardian Building, St. Paul, Minnesota, has prepared for distribution a 12-page booklet entitled "Dishwashing Dividends" which describes problems encountered in the work of the Institution Service Departments. Compressed into 10-minute reading time, the pamphlet details the most recent methods and developments in the operation of dishwashing machines and offers suggestions for more efficient management of dishwashing departments. A description of Super Soilax, the washing compound, equipment care, operation of machine, adequate supervision of dishwashing department, and a chapter on glassware, are included in the booklet which will be forwarded upon request.

Expanded Program for the Dietitian in New York State Hospitals for the Mentally Ill. Some idea of the magnitude of the reorganization program in New York State hospitals can be gained from the fact that the 26 individual institutions operated in the past under no central authority. Of these, 18 are for the mentally ill, 5 for the feeble-minded, and 2 are psychiatric institutions. The plans for reorganization include authorization for a nutrition director who would coordinate the work of the dietitians in the 26 institutions. Money for this has already been appropriated. Other plans are for enlarged gardens, improved canning methods, quick-freezing and dehydration of foods. The sum of $50,000,000 will be allocated for postwar building alone.

The need for competent dietitians has been realized primarily because of the fact that of the present budget of $45,000,000 for New York State mental institutions, $9,000,000 will be spent on food. Also, the problem of feeding the mentally ill demands skilled attention since it is complicated by such factors as the following: many patients are toothless and cannot be given dentures, many are aged and require special inducements to eat, 30 per cent are bedridden, and many are infants.

In New York State institutions the term "mentally ill" has been substituted for "insane"; patients are now "certified" for admittance to an institution instead of being "committed"; a patient now "leaves" the institution for "convalescence" instead of being "paroled." Forty per cent of the mentally ill are now confined to these institutions as a result of an organic, non-transferable disease and there is no reason why they and their relatives should suffer under the onus implied by the word "insane."—*From an address by Dr. Frederick McCurdy, Commissioner of Mental Hygiene, New York State, delivered before the New York State Dietetic Association, New York, May 26, 1944.*